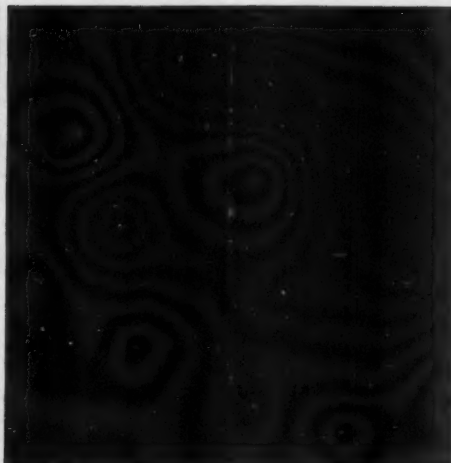
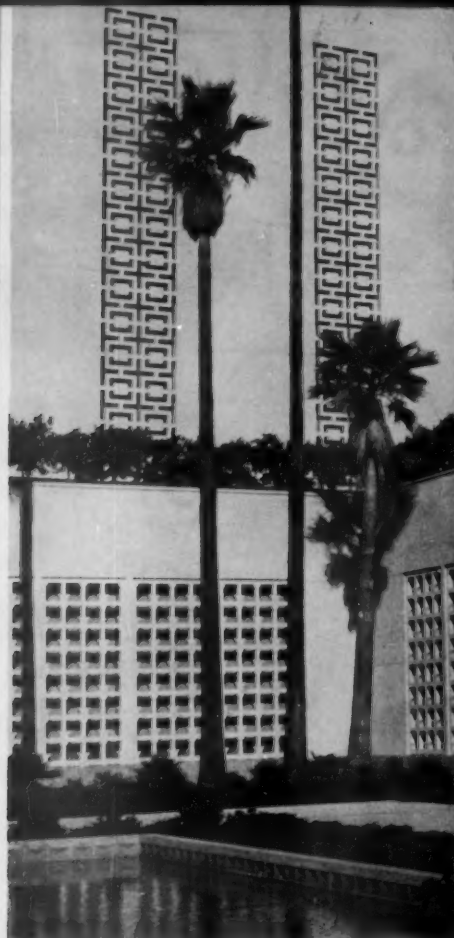


CONCRETE



OUR 52ND YEAR
Serving the Concrete Industries

NOVEMBER 1956



you get these things with

POZZOLITH

... constantly improved
since 1932 to provide
optimum performance ...
lowest costs

OVER 75 FIELD MEN these full-time
MASTER BUILDERS' men provide
valuable product-use know-how

In addition to working with you to assure optimum performance of your Pozzolith concrete, the Master Builders' man also works closely with owners, architects, engineers, contractors, ready-mix producers and commercial testing laboratories, making promptly available for your benefit our 46 years' experience in concrete.

MODERN RESEARCH insures
uniform, high quality in product
design and manufacturing control

Master Builders' research resources in men and equipment—unexcelled in the industry—provide you with a dependable, uniform product which is readily adapted to your varied production requirements.

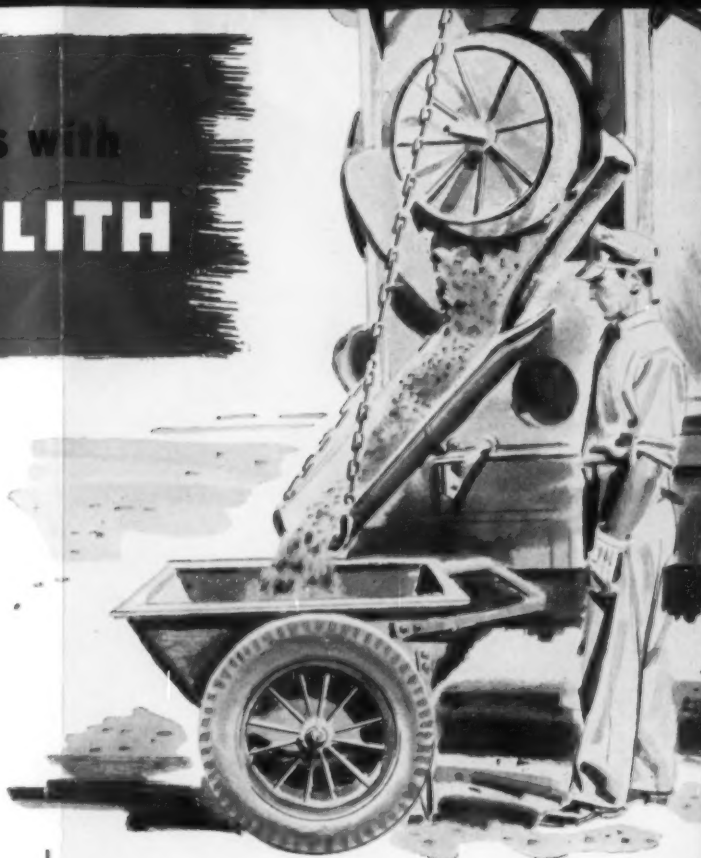
TIME-TESTED ready-mix industry
has proved **POZZOLITH** in
commercial and specified concrete

More than 100 million cubic yards of Pozzolith Ready-Mixed Concrete have been used successfully on all types of jobs demonstrating its unequalled efficiency, economy and uniform dependability.

in short... **IMPROVED PERFORMANCE**
and **ECONOMY**

If you are not already using Pozzolith to economically produce superior quality concrete, it will pay you to contact your local Master Builders' man for information on getting started.

COLORED MOTION PICTURE, "The Man With The Trowel", shows how Pozzolith and its adaptations—through control of water content, entrained air and rate of hardening—greatly improve your control of concrete quality. Film available for private showing to groups of any size.



The

MASTER



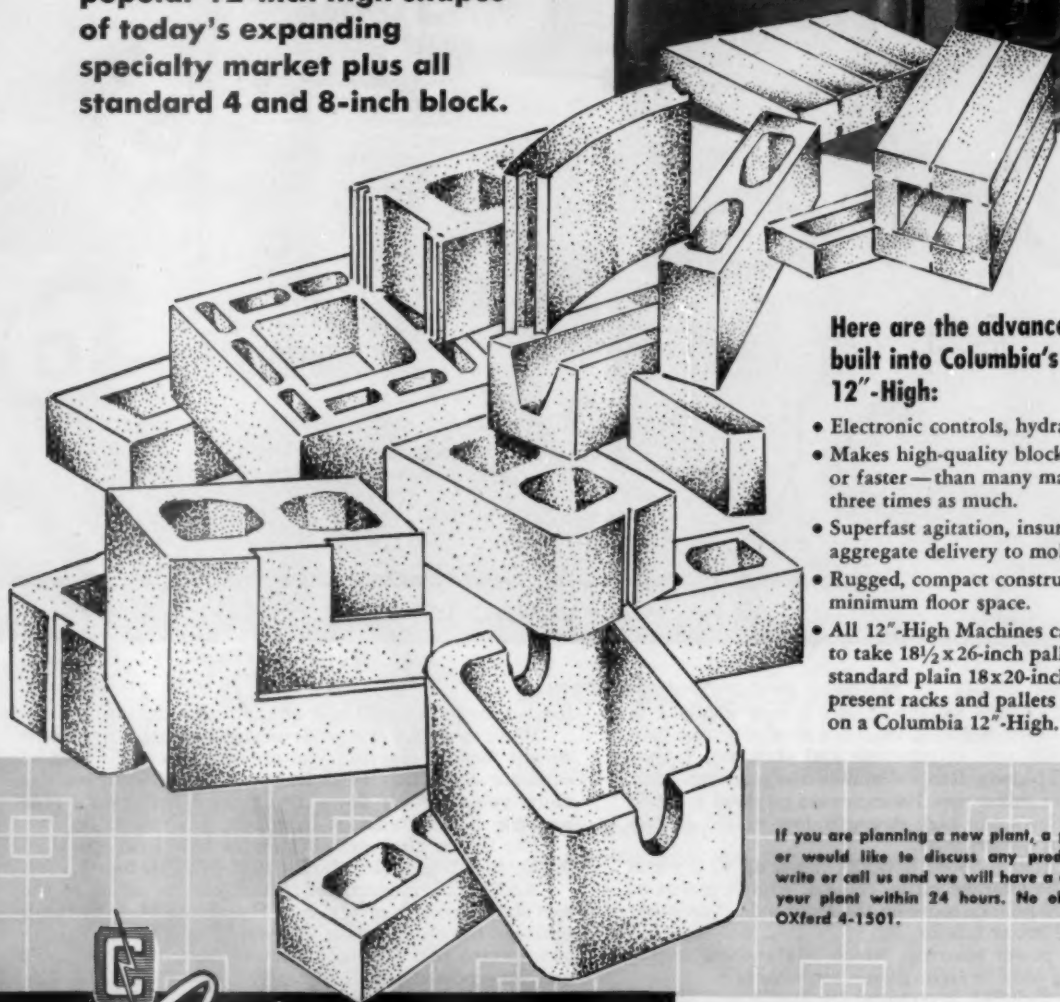
BUILDERS



Division of American-Marietta Company

Columbia
MADE THE 12" HIGH
the **12" HIGH***
MADE THE
MARKET

***Industry's first machine
 to successfully produce the
 popular 12-inch high shapes
 of today's expanding
 specialty market plus all
 standard 4 and 8-inch block.**



Blocks shown
 in machine
 4" x 12" x 24"
 partition.

**Here are the advanced features
 built into Columbia's revolutionary
 12"-High:**

- Electronic controls, hydraulic operation.
- Makes high-quality blocks as fast—
 or faster—than many machines costing
 three times as much.
- Superfast agitation, insuring uniform
 aggregate delivery to molds.
- Rugged, compact construction, requiring
 minimum floor space.
- All 12"-High Machines can be equipped
 to take 18½ x 26-inch pallets, as well as
 standard plain 18 x 20-inch pallets. Your
 present racks and pallets can be used
 on a Columbia 12"-High.

If you are planning a new plant, a plant expansion,
 or would like to discuss any production problem,
 write or call us and we will have a qualified man in
 your plant within 24 hours. No obligation! Phone
 OXford 4-1501.

Columbia MACHINE
 Home Office: 107 S. GRAND, VANCOUVER, WASHINGTON
 Factory Branch and Warehouse at Matoon, Illinois.

District Offices in: Wisconsin, Illinois, South Carolina,
 Mississippi, Florida, New Jersey, Virginia, California,
 Massachusetts, Texas, Montreal, Toronto, Vancouver, B. C.

HAUL 6½ YDS. WITHIN

**Low-weight chassis design of
New Reo F-506M guarantees it!**

POWERED BY REO'S OWN OH 160
GOLD COMET ENGINE—GAS OR LPG...
BACKED BY REO'S OWN 100,000 MILE
OR 1-YEAR ENGINE WARRANTY!



14,000 LBS.

The certified chassis weight of Reo's new F-506M is 11,240 lbs. The official weighmaster's receipt proves how it can haul 6½ yds. of concrete and stay well within legal limits. The new Reo F-506M is designed and built specifically for mixer use. Its increased payload is made possible by Reo's new high-strength, low-weight *double-side-rail frame construction*.

The new Reo F-506M actually hauls up to 2 yards more than the average mixer chassis. And it places as much as 6,000 pounds more on the front axle than other conventional mixer trucks.

Reo full power steering, which is standard, makes maneuvering easy in tight places anywhere.

The new F-506M is powered by Reo's own 160 hp short-stroke, wet-sleeve Gold Comet Engine. Plenty of power for both truck and mixer. And, it's backed by

Reo's famous 100,000 mile or one year warranty.

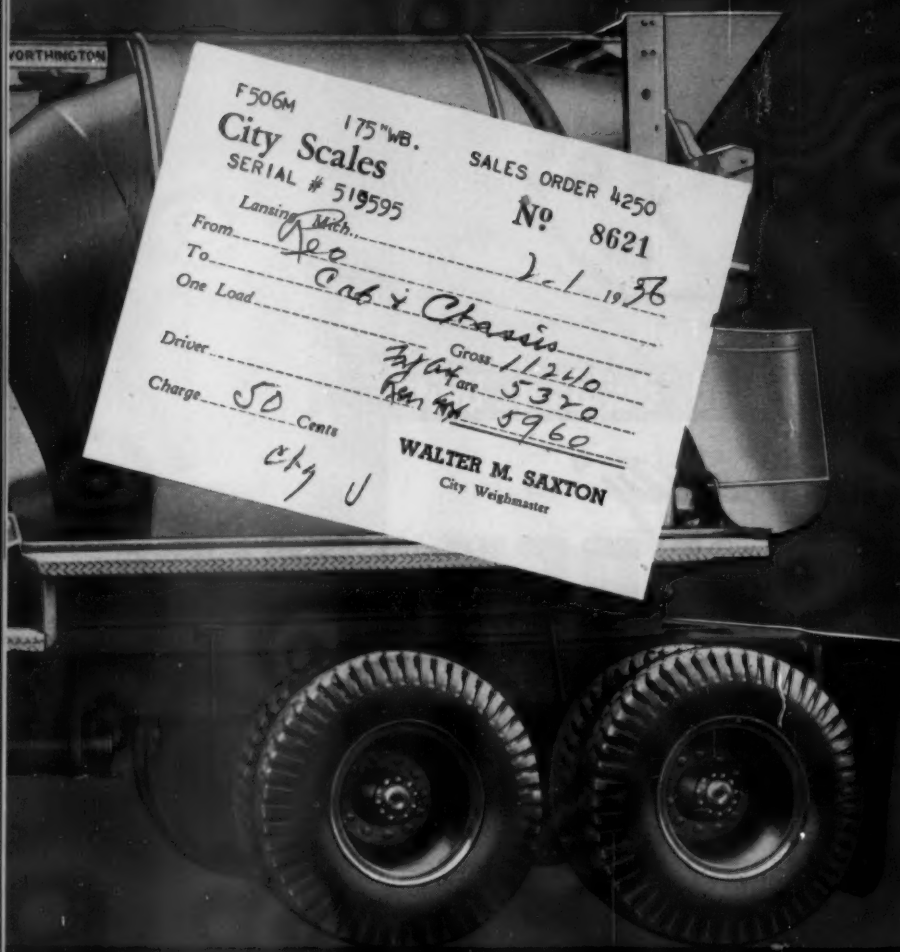
Reo's exclusive *front-axle-payload* design places more weight forward—giving you an extra 2 cubic yards of concrete every trip. With it, you can haul your regular daily volume with fewer trucks and drivers . . . or increase volume without increasing your fleet.

For states that permit greater axle loadings than 32,000 lbs., Reo builds the F-536M—52,000 lbs. G.V.W.

Additional hundreds of pounds can be added to the carrying capacity of the new Reo F-506M with Reo's optional front-end power take-off. The PTO also eliminates extra fuel and maintenance costs of the mixer's auxiliary power unit.

Call your Reo branch or distributor today and get the facts on the Reo that's right for you. Mail the coupon for full information.

32,000 lb. TANDEM LIMIT



REO

REO MOTORS, INC.
LANSING 20, MICHIGAN


SUBSIDIARY OF **BOHN** ALUMINUM AND BRASS CORPORATION

Please send at once:

☐ Complete Specifications on F-506M. ☐ Reo Front-End Power Take-off. ☐ New Tandem Catalog.

NAME _____
COMPANY _____
TITLE _____
ADDRESS _____
CITY _____ COUNTY _____ STATE _____





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True "Air Cavity"
PRESTO BLOCK

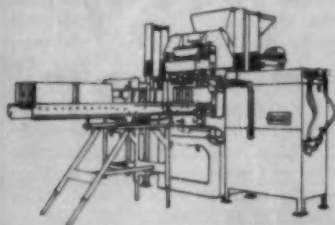
**Now offers YOU
these revolutionary advantages**

LOW-COST, AUTOMATIC PRODUCTION of either 8-inch or 12-inch high units. Presto Blocks are manufactured on the world's most advanced hydraulically-operated, electronically-controlled concrete block machines at 4 to 6 cycles per minute . . . (depending upon the type of aggregate used.)

COMPLETE TWIN WALL INSULATION . . . WITH A SINGLE UNIT! Each Presto Block is actually a miniature twin wall in itself, comprised of two separate concrete blocks united by corrugated steel ties. Only Presto Block eliminates all masonry bond to build a true air-cavity twin wall for complete sound, temperature and moisture insulation.

ECONOMICAL, FAST, EASY ERECTION. Because Presto Blocks are keyed to lock upon erection, they build into a wall with amazing speed and ease. Since Presto Blocks require no additional reinforcing—and no mortar, except for pointing of joints—they afford an in-the-wall economy not obtainable with conventional concrete masonry.

INDUSTRY-WIDE ACCEPTANCE! Since our Presto Block announcement last month, hundreds of architects, builders and manufacturers have wired, written and talked to us by phone, requesting more information. The building industry has enthusiastically endorsed and accepted concrete masonry's most revolutionary advance . . . **PRESTO BLOCK!**



Precision - manufactured Presto Block Machines are manufactured by Columbia Machine under U. S. and world-wide patents, and patents pending.

GET THE COMPLETE PRESTO BLOCK STORY and information regarding franchise arrangements, write, wire or phone today.

PRESTO BRICK MACHINE CORPORATION

Empire State Bldg., New York
© 1956 Presto Brick Machine Corp.

Pennsylvania 6-1353-4-5-6-7



THE BLOCK WITH COMPLETE BUILT-IN INSULATION

NOVEMBER, 1956

CONCRETE

Vol. 64, No. 11 • EST. 1904 • PUBLISHED MONTHLY BY CONCRETE PUBLISHING CORP. • 400 W. MADISON ST., CHICAGO 6, ILL. • Central 6-8822

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With ready-mix plants in five cities, supply yards, a large concrete pipe factory and even a retail hardware store, the Catman Company of Michigan is well on the way to realizing its goal of one-stop service for builders.

Admixtures for Block Concrete26

Here is a careful, thorough examination of what admixtures are and what they can and cannot be expected to do under varied circumstances, written by an expert in this field. By William Grant.

UHF for Denver30

This company's intercommunications system utilizes ultra-high-frequency radio in avoiding the problems mountainous terrain can cause to the ready-mix business. By Robert Latimer.

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30% MORE STRENGTH WITH WIRE FABRIC REINFORCING

Yes, proper reinforcing with welded wire fabric increases slab strength by 30% or more. The cost of the wire fabric is repaid many times over by extended, trouble-free service life. Look at it this way—the increased strength obtained when concrete is reinforced with welded wire fabric provides higher resistance to damage . . . improves stress distribution for handling bigger loads . . . minimizes maintenance by overcoming the deteriorating effects of shrinkage stresses, varying temperatures, and moisture content.



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16-Page Booklet—Get the complete story. Contact our nearest district sales office and ask for Wire Reinforcement Institute publication HT-60, "Reinforced With Welded Wire Fabric". And don't hesitate to tell us about your reinforcing problems. We will be glad to help you select the right reinforcing for your jobs. Of course, Clinton Welded Wire Fabric is made to A.S.T.M. specifications in a variety of gauges and spacing.

WHEN THEY ASK...

"is it Reinforced?"

SAY YES... WITH

CLINTON
WELDED WIRE FABRIC
THE COLORADO FUEL AND IRON CORPORATION

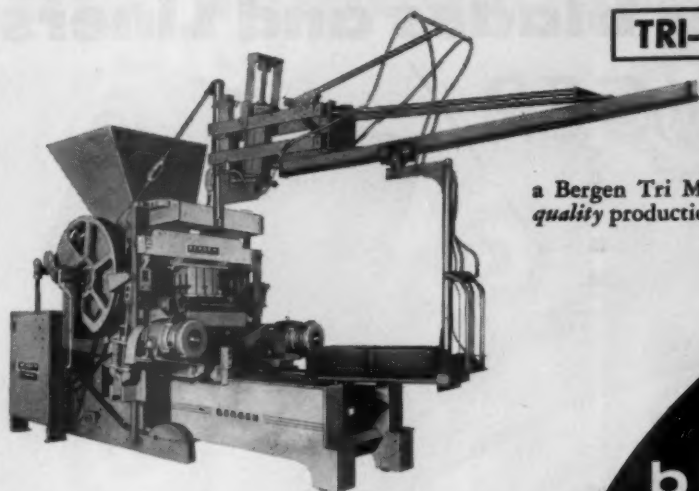
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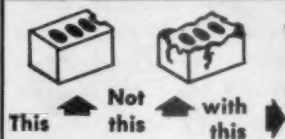
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a truly HIGH PRODUCTION machine!
Rugged, Powerful, Dependable . . .
a Bergen Tri Matic is your assurance of maximum top
quality production, for many years.



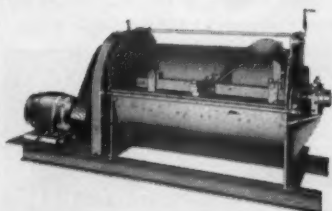
LIGHT-WEIGHT HOIST

The low-headroom
feature (requires only 12 ft.) plus the new power-
ful magnetic plate makes the BERGEN Hoist a
real high-production asset to any block plant.



Zeromatic
**HEIGHT & DENSITY
CONTROL**

The BERGEN ZERO-
MATIC automatically
controls aggregate volume to the mold and the vibration
period under pressure. It maintains precise *Quality Control*
on the Density, Texture, and Height of the blocks produced
on your block machine.



BATCH MIXER

Unusually heavy construc-
tion — you get longer,
trouble-free life from
genuine Ni-Hard liners
and blades, as well as

double life from the exclusive reversible 130-tooth main
gear. All combine to assure superior mixing for many years.

MORE
block plants
are buying
MORE
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*Every
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Phone "Collect" or
write for complete details and
prices of these or any other Bergen products.



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MACHINE & TOOL CO., INC.
NUTLEY, NEW JERSEY

Cable Address: "BERGENCO" (Nutley, N. J.)

it's a concrete fact!

30% MORE STRENGTH WITH WIRE FABRIC REINFORCING

Yes, proper reinforcing with welded wire fabric increases slab strength by 30% or more. The cost of the wire fabric is repaid many times over by extended, trouble-free service life. Look at it this way—the increased strength obtained when concrete is reinforced with welded wire fabric provides higher resistance to damage . . . improves stress distribution for handling bigger loads . . . minimizes maintenance by overcoming the deteriorating effects of shrinkage stresses, varying temperatures, and moisture content.



FREE

16-Page Booklet—Get the complete story. Contact our nearest district sales office and ask for Wire Reinforcement Institute publication HT-60, "Reinforced With Welded Wire Fabric". And don't hesitate to tell us about your reinforcing problems. We will be glad to help you select the right reinforcing for your jobs. Of course, Clinton Welded Wire Fabric is made to A.S.T.M. specifications in a variety of gauges and spacing.

WHEN THEY ASK...

"is it Reinforced"

SAY YES... WITH

CLINTON
WELDED WIRE FABRIC
THE COLORADO FUEL AND IRON CORPORATION



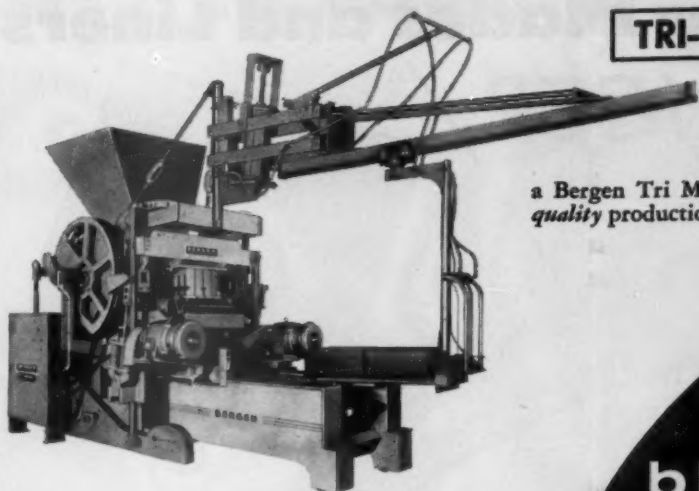
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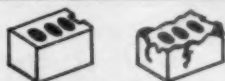
TRI-MATIC BLOCK MACHINE

a truly HIGH PRODUCTION machine!
Rugged, Powerful, Dependable . . .
a Bergen Tri Matic is your assurance of maximum top
quality production, for many years.



LIGHT-WEIGHT HOIST

The low-headroom
feature (requires only 12 ft.) plus the new power-
ful magnetic plate makes the BERGEN Hoist a
real high-production asset to any block plant.

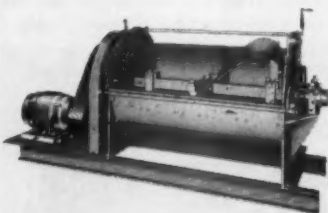


This Not this

Zeromatic

HEIGHT & DENSITY
CONTROL

The BERGEN ZERO-
MATIC automatically
controls aggregate volume to the mold and the vibration
period under pressure. It maintains precise *Quality Control*
on the Density, Texture, and Height of the blocks produced
on your block machine.



BATCH MIXER

Unusually heavy construc-
tion — you get longer,
trouble-free life from
genuine Ni-Hard liners
and blades, as well as

double life from the exclusive reversible 130-tooth main
gear. All combine to assure superior mixing for many years.

MORE
block plants
are buying
MORE
BERGEN
EQUIPMENT

*Every
day!*

Phone "Collect" or
write for complete details and
prices of these or any other Bergen products.



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BESSER Mixer Blades and Liners LAST LONGER



Genuine Besser Mixer Blades and Liners are made to outlast other similar parts on the market. Here are two reasons why. (1) Besser has complete control of the entire manufacturing process. We have our own foundry. We have our own production facilities all under one roof. We have our own modern heat-treat department. And, our inspectors check every part before it leaves the plant. (2) Besser uses the finest ingredients to make Genuine Besser X-Ni-Hard Metal. Castings are properly heat-treated and stress-relieved to give long service.

Always use Genuine Besser X-Ni-Hard Blades and Liners.

Tip to Blockmakers — To accommodate large aggregate, always maintain $\frac{1}{2}$ " clearance between liners and blade when replacements are made. With a clearance greater than $\frac{1}{2}$ ", material accumulates at bottom of mixer, thereby resulting in a poor mix.

BESSER Company

BOX 127, ALPENA, MICHIGAN, U. S. A.

Complete Equipment for Concrete Block Plants

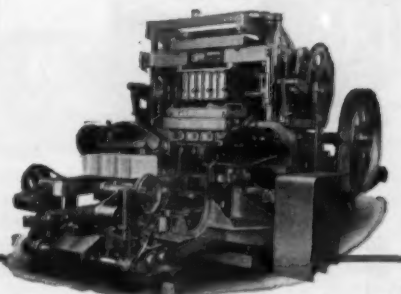
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116 Michigan Avenue
Buffalo, New York
Phone: MOhawk 3990 & 6019

NEWARK
140 Delancy Street
Newark, New Jersey
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WESTINGHOUSE TRANSIT MIXERS



"COMMON SENSE says your fully-enclosed gear drum drive is better" *reports owner of large ready-mix fleet*

"As far as we are concerned there are several good truck mixers," says the owner of one of the large ready-mix fleets in the central United States, "but we think the Westinghouse Mixer, with the fully-enclosed gear drum drive, is outstanding—because we feel this particular feature makes real sense.

"Since this drum gear drive runs in oil it obviously eliminates abrasive

wear . . . constant lubrication . . . and high maintenance costs. We have 10 mixers with this type of drive and their maintenance has been nil."

This owner's experience shows that the exclusive, patented Westinghouse gear drive requires no more time and attention than a conventional-type automobile transmission. With this type of drive there is no chain to become too tight or too loose from truck frame weaving . . . no open pinion drive to wear out from abrasion and misalignment.

CHECK BEFORE YOU BUY

Westinghouse Transit Mixers have many extra features for increased performance and longer life. Ask your W.T.M. distributor to show you one of these mixers in action. Find out for yourself why these are the mixers that day-in and day-out do more work, in less time, at lower cost—at the end of the year prove to be your best transit mixer investment. For more information write for our new Bulletin 256.

This feature eliminates all exposed chains and gears. Greatly reduces maintenance costs.



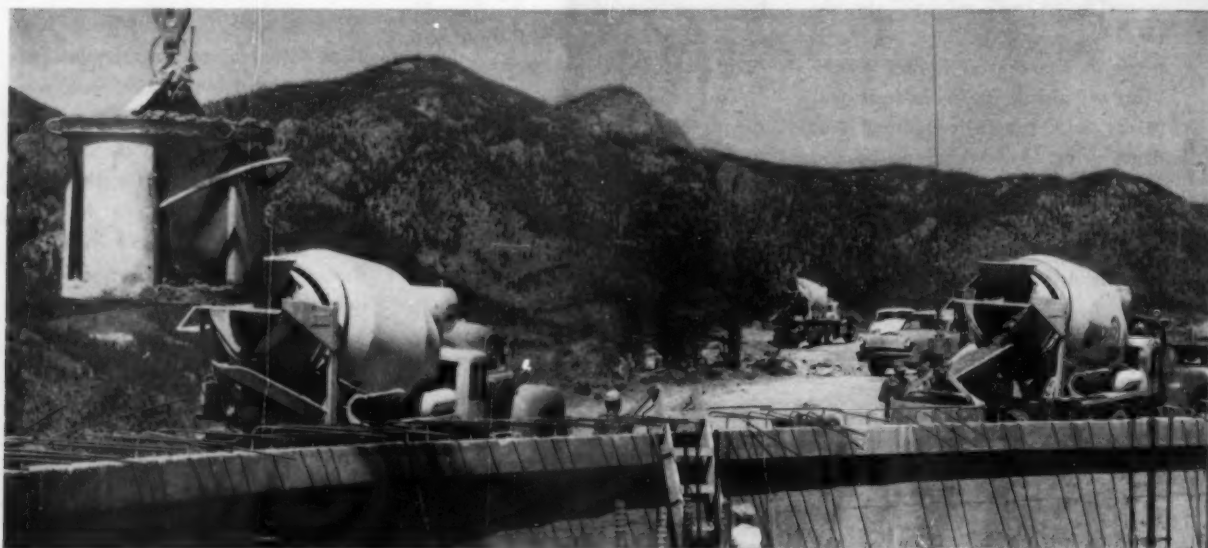
WESTINGHOUSE TRANSIT MIXER DIVISION
LeTourneau-Westinghouse Company

I N D I A N A P O L I S , I N D I A N A



FAST WORK ON TUNNEL WALLS: Jaeger's 3-speed transmission provided fast charging and discharging of

6-yard batches of 3" to 4" slump concrete for Detroit utility tunnel. Mixer is latest Model 5½ HMD.



ONE UP, ONE POURING, ONE AWAY: "Jaeger mixers certainly mix and handle this 2" slump concrete beautifully," comments E. F. Matelich of Matelich & Hansen, Inc., contractors on the potable water reservoirs for U. S. Air

Force Academy, Colorado Springs, Colorado. Five Jaeger "Mix Plus" truck mixers, delivering 6-cubic yard batches with a 6 mile trip-haul, poured 700 yards of 2" slump material for the heavy floor slab.



BATCHES, LAID END TO END, MEASURE 8580 FEET: For 978 ft. Breach Inlet bridge at Charleston, S. C., Redi-Mix Concrete Company's Jaeger truck mixers supplied

1678 yards of Class A concrete and the material for 8580 linear feet of 21" octagonal concrete piling which was pre-cast on the site.

3-speed Jaeger hits the buckets faster

Talk to any operator of the Jaeger Model "D" truck mixer. He'll tell you he would never go back to a 2-speed outfit.

With his Jaeger 3-speed transmission, he can fast charge at 16 rpm drum speed and then drop down as slow as $1\frac{1}{2}$ rpm for long haul agitation. On the job he can discharge at any rate he wants. Low-low speed gives him ample power to discharge stiff concrete even as slowly as a cupful at a time. This broad range of operation is all within proper engine speed range of 800 to 2000 rpm.

With the further advantage of Jaeger's bigger throated hopper and 25% larger discharge blades, you can out-charge and out-discharge any mixer you've ever owned—often by minutes.

Another thing—today's Jaeger has an extremely short center of gravity. Mounts to advantage on standard trucks, with your choice of optional equipment including either separate engine or long-proved truck engine drive controlled from cab. For details, see your Jaeger distributor—or write us.



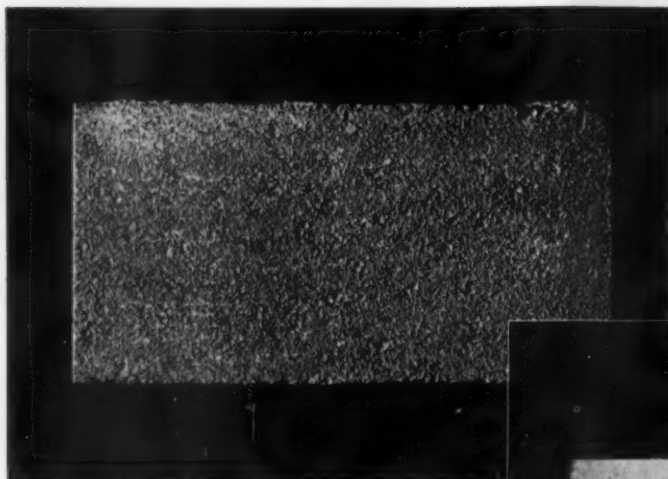
CLOSE CONTROL FOR BUGGIES AND BARROWS: With 3 speeds and single lever operation, Jaeger operators easily control speed and volume of discharge of any slump concrete to each customer's need—a drum-load or a cupful.



THE JAEGER MACHINE COMPANY

522 Dublin Avenue, Columbus 16, Ohio

COMPRESSORS • PUMPS • MIXERS • PAVING SPREADERS, FINISHERS



← **ORDINARY BLOCK Without NR PLASTIC—
ROUGH FINISH, DARK COLOR**

**IMPROVED BLOCK* With NR PLASTIC—
SMOOTH FINISH, LIGHTER COLOR**

← * Manufactured at HOERNING'S CONCRETE PROD. CO., Menasha, Wisconsin.



With
JUST ONE TABLESPOON OF
DRY, POWDERED
NR PLASTIC
PER BAG OF CEMENT!

**GREATER PLASTICITY IN THE GREEN UNIT —
PLUS 20% LIGHTER COLOR...**

Cost... 1/2c per Bag of Cement!

Hydrate ALL the cement in your dry block and pipe mix . . . with just one tablespoonful of dry, powdered NR PLASTIC per bag of cement. Cost 1/2c per bag!

YOU'LL GET

A 20% lighter colored unit with a more thoroughly wetted cement paste! Complete hydration through complete saturation without adding more water! Sharper

corners . . . better texture . . . smoother, denser surfaces through greater compaction! Faster, cleaner feeding into . . . and stripping from . . . the mold box! 50% reduction in wear on mold box liners! Greater plasticity in the green unit through absolute dispersion of water and cement . . . and . . . complete coating of all the aggregate particles! Simple and economical to use . . . add dry as it comes from the container! Cost 1/2c per bag of cement!

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Write for literature and free 8 lb. sample of NR PLASTIC.

Edick Laboratories
427 W. National Ave., Milwaukee 4, Wis.

Gentlemen, Please RUSH Sample of NR PLASTIC

NAME TITLE

FIRM

ADDRESS

CITY ZONE STATE

Another **LEADER** in the Block Industry!

Dick Francis says:

"If it hadn't been possible for me to lease the first Besser Vibrapac, I would never have been in the block business."

★This is the 136th of a series of ads featuring leaders in the Concrete Products Industry who are stepping up block production with Besser Vibrapac machines.

Today — This Progressive Cincinnati Plant Has a Daily Production of 45,000 Block

Reading Concrete Products, Inc., Reading, Ohio, started in the block business in 1947 with a single-block tamper having a daily capacity of 1800 units (8" or equivalent). Today, the company is Greater Cincinnati's largest producer of block with production stepped up to 45,000 units per day.

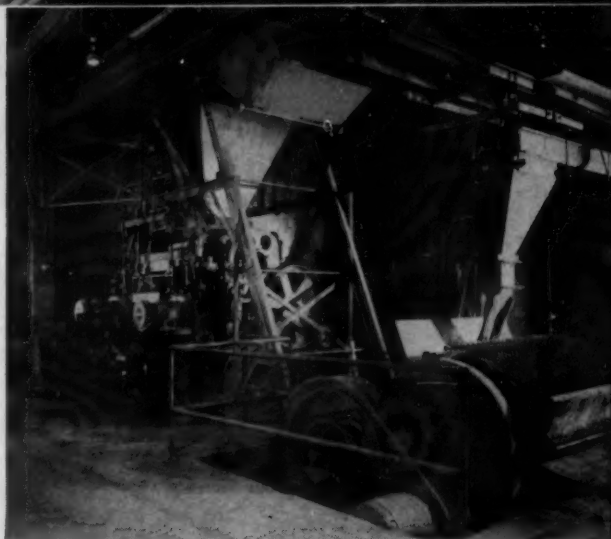
Besser Vibrapacs have been a big factor in the success of the company. The first machine was installed through the Vibrapac Agreement Plan. This proved so successful, five more machines were added from time to time... all through the Vibrapac Agreement... a plan that has enabled the company to keep up with the ever-increasing demand for concrete block. As Dick Francis, founder and spark plug of the company states: "The Vibrapac Agreement gives me working capital to expand and grow".

You, too, can make money with Besser Vibrapacs. Contact the Besser representative nearest you, or write directly to the factory for literature. There's no obligation.

BESSER Company

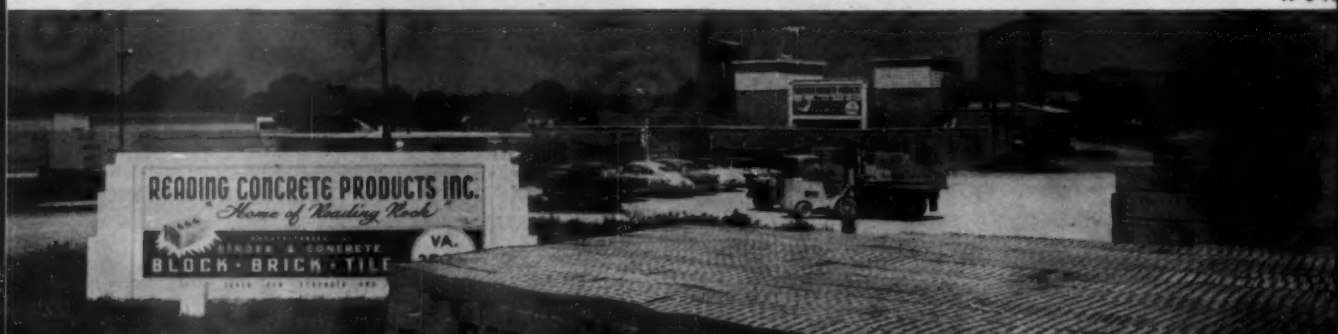
BOX 127 • ALPENA, MICHIGAN, U. S. A.

First In Concrete Block Machines



Five Besser Vibrapacs are now operating at the "Reading Rock" plants located at Newtown, Miamitown and Reading Road. A sixth Vibrapac is ready for installation in Reading Rock's new plant on Hamilton and Cincinnati Pike. These machines produce high quality units marketed with the trade slogan — "Reading Rock the Quality Block".

A 6-10



WHETHER ENGINE TAKE-OFF DRIVE OR INDEPENDENTLY POWERED
CMC Transcretes make you more money



1 GUARANTEED FASTER CHARGING...
 CMC "Swing-In" Hopper has 56% larger opening and no sharp turns. Takes material super fast — a yard every 8 to 9 seconds — without any flash back of cement or spilling of aggregates.



2 GUARANTEED MORE THORO MIXING...
 Extra large diameter drum head plus deep "L" section blades assures greater mixing action per drum revolution. This guarantees faster, more thoro, more efficient mixing of any slump concrete.

3 GUARANTEED QUICKER DISCHARGE...
 Exclusive CMC "Swing-Out" Hopper is out of the way for discharge so concrete can come through big UNOBSTRUCTED opening in full, easily controlled stream. Handiest chute arrangement of all makes any pour simple, easy, fast.

TRANSCRETES are America's only truck mixers with the famous CMC Floating Drive which eliminates the troubles of ordinary rigid drives. Still another reason why TRANSCRETES beat 'em all a country mile for pouring more and better concrete — easier, faster — and at less cost!



There's a size TRANSCRETE (from 4 to 7 yard mixing capacities) to do any job in the books. And they carry a money-back guarantee!



**For complete information on TRANSCRETES...
 contact your local CMC distributor ... or write us**

CONSTRUCTION MACHINERY COMPANY • Waterloo, Iowa

Lith-I-Block Machine

... ITS OWN BEST SALESMAN!



John Holtrop, Pres.
Holtrop Concrete Products, Inc.
Ferrysburg, Mich.

TELEPHONE 8008

HOLTROP CONCRETE PRODUCTS, INC.
FERRYSBURG, MICHIGAN

October 3, 1956

Lith-I-Bar Company
345 W. 11th St.
Holland, Mich.

Gentlemen:

We installed our first Lith-I-Block machine over five years ago and found the answer to our production problems. Our first machine, a two-blocker, was soon found to be too small, so in 1953 we installed the larger machine.

We find no difficulty in exceeding the rated capacity of the machine and it will do it hour after hour. The blocks have a uniform texture which is proof of even and proper vibration. The lightweight unit made on this machine is a beauty.

Our contractor customers actually compliment us on the square corners and clean sharp edges. Our repair cost and down time have never been as low.

Our association with the Lith-I-Bar Company has been very pleasant, from top management to sales and service departments. When problems do arise they go all out to do everything in their power to insure customer satisfaction and we are one satisfied customer.

Very truly yours,

HOLTROP CONCRETE PRODUCTS

John Holtrop

John Holtrop, Pres.



**HYDRAULIC or
AIR POWERED
2 or 3
BLOCK MODELS**



**THE BLOCK MACHINE
WITH THE PROVEN FEATURES
MOST WANTED BY BLOCK PRODUCERS**

SALES AND SERVICE THE WORLD OVER

LITH-I-BAR COMPANY

HOLLAND • MICHIGAN

ONE PIECE OF EQUIPMENT OR A COMPLETE PLANT LAYOUT

LITH-I-BAR CO.

HOLLAND, MICH.

Send me latest bulletins on Lith-I-Block Machine.

NAME _____ TITLE _____

COMPANY _____

ADDRESS _____

CITY & STATE _____

Everybody's headed for St. Louis!



37th ANNUAL NATIONAL CONCRETE MASONRY ASSOCIATION CONVENTION

10th CONCRETE INDUSTRIES EXPOSITION

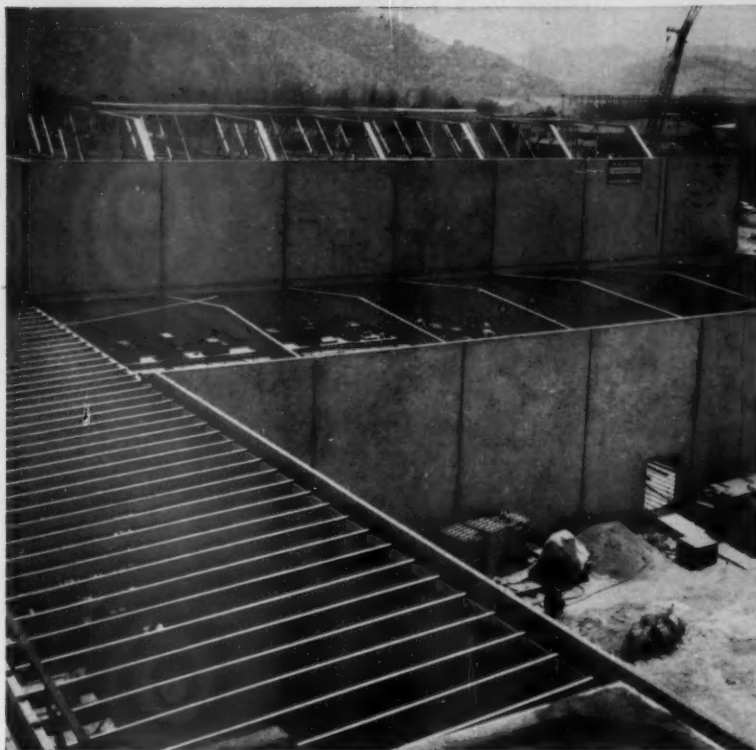
Kiel Auditorium, St. Louis
FEBRUARY 25-26-27-28

ALL THAT'S NEW in promotion and research! Big, new equipment and materials exposition! Coming up are four days which can add dollars to your profits, ideas for promotion, ways to cut costs—and a little fun besides. This is your chance to find out what's new in the block and ready-mix business, what your colleagues are doing, what you can do better in your own home town. Send your reservation now.



ADDRESS HOTEL RESERVATIONS:

Hotels Convention Reservation Bureau, N.C.M.A.
Room 406, 911 Locust Street, St. Louis 1, Missouri



UNITS CONSISTED OF 90 x 140 FT. studio with 46 ft. high walls, and 50 x 140 ft. technical building, 32 x 140 ft. dressing room and service corridor with 27 ft. high walls. Austin Co., designers and builders. Western Construction News Photos.



20 x 19 FT. UPPER TIER PANELS were erected with 2 pick-up points. On the 20 x 27 ft. lower panels, four pick-up points, two .20 of length from top and two .45 from top, were used. Temporary shores were used until roof trusses were installed. Note nailing strips for acoustical materials, pinned to wall panels before tilt-up.

35,000 sq. ft. of walls tilted up in 4 days

THE AUSTIN COMPANY required only 5 months from design to finished structure of this 60,000 sq. ft. three-unit television studio for National Broadcasting Co. at Burbank, Calif. But the fastest part of this fast-moving job was the erection of its 35,000 sq. ft. of walls in 4 days.

This was done by precasting the walls near their intended positions, in 84 concrete panels 20 x 27 and 20 x 19 ft. in area and of 6 in. thickness. After 28-day curing to required 3000 psi strength, the panels were easily tilted up by mobile crane at the rate of more than 20 per day.

Efficient modern construction like this is facilitated by the use of ready mixed concrete, properly processed and poured in place by truck mixers of certified design, capacity, mixing speed and accuracy of water control.



You have a right to insist on this Rating Plate. It certifies compliance with the high industry standards maintained for your protection by the Truck Mixer Manufacturers Bureau.

BLAW-KNOX CONSTRUCTION EQUIPMENT DIV.
Mattoon, Ill.

CHAIN BELT COMPANY
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CHALLENGE MANUFACTURING CO.
Los Angeles, Calif.

CONCRETE TRANSPORT MIXER CO.
St. Louis, Mo.

CONSTRUCTION MACHINERY CO.
Waterloo, Iowa

THE JAEGER MACHINE COMPANY
Columbus, Ohio

THE T. L. SMITH COMPANY
Milwaukee, Wis.

WILLARD CONCRETE MACHINERY CO., LTD.
Lynwood, Calif.

WORTHINGTON CORPORATION
Plainfield, N. J.

INDUSTRY NEWS

Announce Program For SENCMA Meeting



G. W. Katterjohn

George W. Katterjohn, president of the South-eastern Concrete Masonry Association, has sent us a tentative agenda for his regional organization's forthcoming annual meeting at the Eden Roc Hotel, Miami Beach, Florida, November 14-16. Speakers tentatively scheduled to address the meeting include Dr. J. L. Brakefield, director of public relations for the Liberty National Life Insurance Company; R. D. Roberts, vice president of the Florida Light and Power Company; Earl W. Peterson, president of the National Con-

crete Masonry Association; and Elizabeth Gordon, editor of *House Beautiful* magazine.

Discussion at the Miami Beach meeting will cover such topics as what an architect expects of the concrete masonry producer, and what the producer should try to get the architect to do. Also on the agenda will be a thorough discussion of some of the problems involved in laying out a block plant for the most efficient operation.

On the social side, Mr. Katterjohn advises us, there will be a banquet, a men's luncheon, a sight-seeing trip through Miami, which will include the famous seaquarium, and a luncheon-style show for the ladies. Those wishing to attend the meeting are urged to write promptly to Robert W. Whalen, director of sales, Eden Roc Hotel, Miami Beach, Florida.



Biggest Prestressed Structure

● Representing the largest application of precast, pre-tensioned concrete construction in the world, the 24-mile bridge across Louisiana's Lake Pontchartrain was officially opened on August 30, four months ahead of schedule. The use of prestressed concrete instead of an alternate structural steel design saved the builders and users of the bridge about \$7.4 million, or about 27 per cent of the total cost. The Freyssinet Company of New York was responsible for designing the prestressing facilities and for supervision of construction and production of the bridge deck.

Calendar . . .

NOVEMBER 12-19 American Concrete Pressure Pipe Association — 8th Annual Convention and Meeting — Castle Harbour Hotel — Tucker's Town, Bermuda.

NOVEMBER 14-16 Southeastern Division, National Concrete Masonry Association — 13th Annual Regional Meeting — Hotel Eden Roc — Miami Beach, Florida.

NOVEMBER 26-27 Wire Reinforcement Institute — Fall Meeting — The Jung Hotel — New Orleans, Louisiana.

JANUARY 16-17 Wisconsin Concrete Products Association — 36th Annual Convention — Plankinton Hotel — Milwaukee, Wisconsin.

JANUARY 17-19 National Concrete Products Association — 8th Annual Convention — Sheraton Mount Royal Hotel — Montreal, Canada.

JANUARY 20-24 National Association of Home Builders — 13th Annual Convention and Exposition — Conrad Hilton, Sherman Hotel, Chicago Coliseum — Chicago, Illinois.

1957

JAN. 28-FEB. 2 American Road Builders' Association — 55th Annual Convention — International Amphitheater — Chicago, Illinois.

FEBRUARY 10-13 Mason Contractors Association of America — 7th Annual Convention and Show — Morrison Hotel — Chicago, Illinois.

FEBRUARY 11-14 National Ready Mixed Concrete Association — 27th Annual Meeting — Statler Hotel — Los Angeles, California.

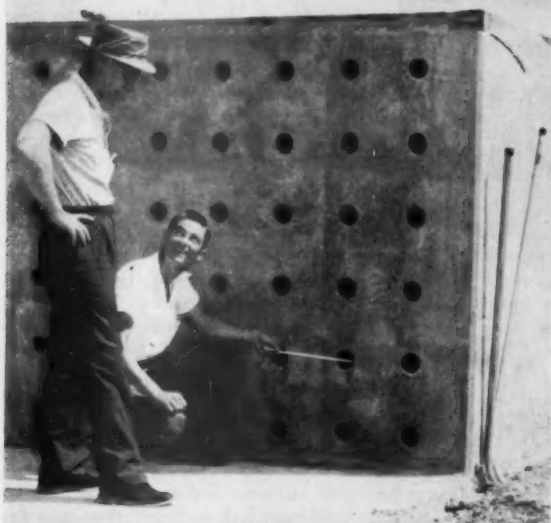
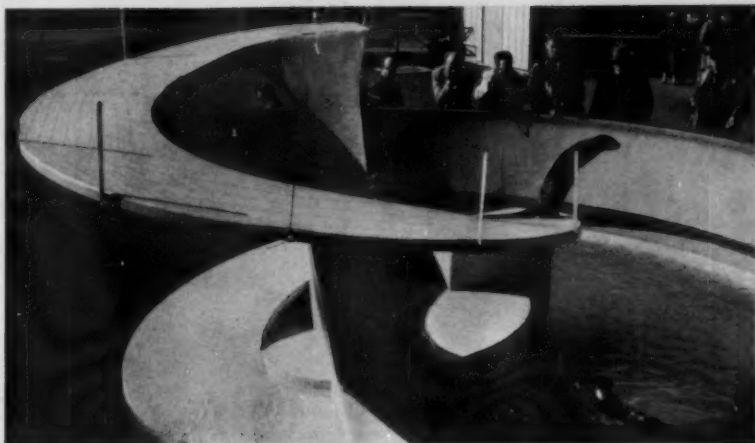
FEBRUARY 25-28 Concrete Industries Exposition — 10th Biennial Exposition — Kiel Auditorium — St. Louis, Missouri.

FEBRUARY 25-28 National Concrete Masonry Association — 37th Annual Convention — Kiel Auditorium — St. Louis, Missouri.

MARCH 6-9 American Concrete Pipe Association — 49th Annual Convention — Shoreham Hotel — Washington, D. C.

Concrete Fun for Otters

● Deciding that a spiral to climb up and a ramp to slide down were essential to the pursuit of whatever it is otters pursue, architects Underwood, McKinley and Cameron designed this intricate structure for Stanley Park Zoo in Canada. Made of concrete poured in fir plywood forms, it has an apartment in the base for its occupants. Water flows continually on the slide to keep it slippery and fast. The otters enjoy it immensely.



New Prestressing Bed

● LEFT: Floyd L. Furnell, president and general manager of Prestressed Concrete, Inc., and Tom Moore, secretary-treasurer of the firm, examine one of the walls on their new prestressing bed in Lakeland, Florida. Each abutment contains 135 cubic yards of concrete and 12,600 pounds of reinforcing steel, enabling it to withstand a total horizontal force of two million pounds. The bed was designed by Leap Concrete, Inc., also of Lakeland, from whom this company holds a franchise. BELOW: Workmen put the finishing touches on the 422-foot prestressing bed, called Florida's largest. With it Prestressed Concrete, Inc. can produce any type of bridge member — beams, girders — and industrial building beams, pilings, double tee sections, and columns. The new plant will be capable of turning out prestressed concrete beams covering a clear span of up to 125 feet.



Everybody's Business

HOME BUILDING

- Though housing contract awards increased in dollar value for the months of August and September, the over-all picture of lessening quantity demand still remains in the foreground. Actually, both the reported number of housing starts and residential construction awards were off when compared with a like 1955 period. The dollar-value increase, instead, reflected a trend toward homes within the larger and higher-priced categories.

- There is considerable debate among mortgage people as to whether the September action of the Government to ease terms of home mortgage loans will prove effective to combat the drop in residential construction. The root of the problem is still the very tight money situation. And government lending agencies are faced with this real and acute problem, just as are the banks and the various other loan establishments. During recent months borrowing by the Government reached a 23-year high of 3.024 per cent.

- This problem of tight money doesn't rest with the government and banks alone, but it spreads over into all aspects of business. Recent and projected increasing demands for commodities have required vast numbers of small-to-large businesses to search for the needed capital to finance expansion. And this fight for capital forces a higher rate of interest on money borrowed.

- Some possible solutions that are being investigated by industries are: (1) the issuance of new stocks, bonds, or both; (2) sale of the physical plant properties and, in turn, arranging for a long term lease with the purchaser; and (3) the payment of stock dividends instead of depleting the cash reserve of the organization.

MATERIALS

- The makers of concrete block in the Milwaukee area have taken a long step toward standardizing their product into modular-sized units. And this plunge is meeting with considerable opposition from some of the builders in the area. Previously, basement wall construction to meet the FHA and VA standards for a ceiling height of 6 feet 10 inches required only 10 courses of 8-inch block. Now, however, with the modular-sized block set at 7 $\frac{5}{8}$ inches (combined with a $\frac{3}{8}$ -inch mortar joint, the total becomes an 8-inch course), the builders are having to go into ten-and-one-half or eleven courses, thus increasing their costs. Still, in all, building in modules can effect a considerable savings in the long run.

- Prices for cement have continued the increase initiated earlier this year by Lehigh Portland Cement Company. A number of the other large producers have increased their prices within the last two months, bringing the per barrel price to between \$3.20 and \$3.40.

- A bright light is the possible gasoline price cuts that may come in the near future. The petroleum industry now has excess inventories, but this picture might change momentarily if the critical Suez Canal situation takes a turn for the worse.

TAXES

- A recent Internal Revenue Service ruling stated that a concrete mixer, consisting "of a large mixing tank set on gears and rotated by a motor" is not subject to manufacturer's excise tax, even though mounted on an automobile or truck chassis. The five-per cent excise tax still applies, however, to the chassis itself.

- Instruction pamphlets for the preparation of the 1956 individual income tax returns are now ready for distribution.

- The Justice Department has ruled that 10-per cent depletion is allowable on cement rock but not on conversion of the rock into powdered cement.

Cement Official Says "No More Shortages!"

According to a recent statement by the president of one of the country's leading cement companies, cement shortages are a thing of the past. The statement was made by W. A. Wecker, president of Marquette Cement Manufacturing Company.

Pointing out that the cement industry is now bringing new capacity into production at a rate more than ample to meet building needs for years to come, Mr. Wecker stated that there is every indication of an over-supply of the material in the middle west and south. His statements were based on a new survey of capacity building and consumption trends in the 18 middle west and southern states served by Marquette.

Mr. Wecker pointed out that the capacity of the cement plants serving the 18-state area was 124 million barrels in 1955, and that the figure will increase 27 percent to 157 million barrels by the end of 1956. It is expected that consumption in 1957 will increase only 10 percent over 1955 to 118 million barrels. By 1958 capacity will show an increase of 33 percent over 1955, bringing this figure to 165 million barrels annually, while consumption is expected to increase only about 15 percent to 124 million barrels.

Mr. Wecker believes that the augmented requirements for new highway building and for all other building needs will be more than met for years to come by the enlarged productive capacity of the cement industry. Pointing out that the cement industry has been most aggressive in committing millions of dollars to expansion of its facilities, Mr. Wecker asserted that future needs have been fully anticipated. He believes that the industry may actually have over expanded, not only in the area served by Marquette, but in other sections of the country as well.

Homebuilders Expect Record Attendance

The 1957 Convention-Exposition of the National Association of Home Builders, scheduled to be held in Chicago, January 20-24, is expected to break all previous records and to provide the largest housing show in history. Over 31,000 people registered for the 1956 Exposition.

NCMA Adds Engineer To Headquarters Office



R. D. Dikkers

R. E. Copeland, director of engineering of the National Concrete Masonry Association, has announced the appointment of a new assistant engineer to operate out of the association's Chicago headquarters. He is Robert D. Dikkers, who was previously a junior civil engineer with the Harza Engineering Company, Chicago.

Mr. Dikkers is a graduate in engineering from Northwestern University, and he holds also a master's degree from the California Institute of Technology. His background of experience includes two years in the Army Corps of Engineers, where he did topographical surveying and mapping work.

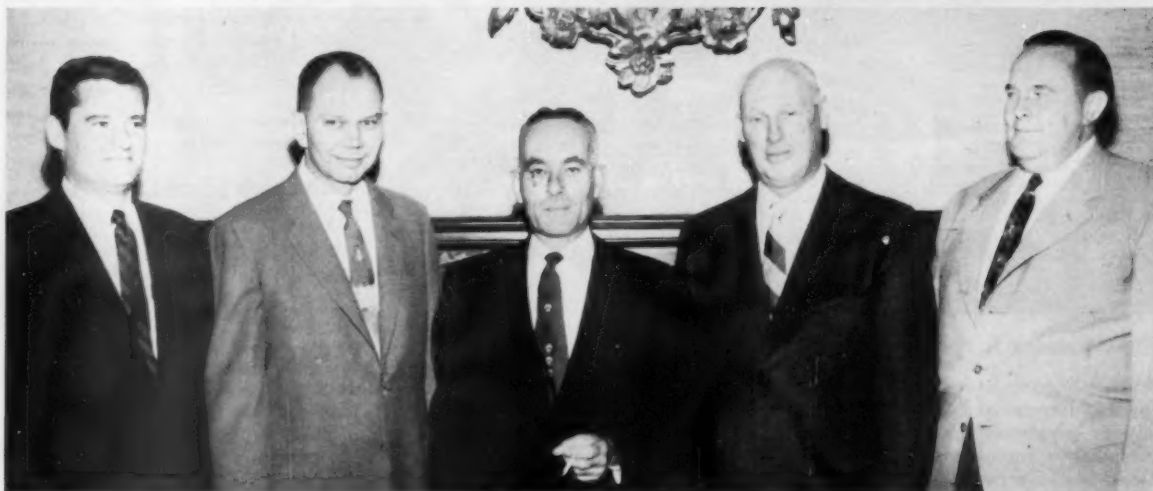


Kansas Concrete Masonry Assn.

● At their bi-monthly meeting, held recently in Ottawa, Kansas, members of the Kansas Concrete Masonry Association were addressed by Earl Peterson, president of the National Concrete Masonry Association. Shown in the picture above are Mr. Peterson; James Hammel, president of the Kansas association; and A. K. Bader, vice president of the Kansas chapter of the American Institute of Architects.

Expanded Shale Group Meets

● Officers newly elected at the fourth annual meeting of the Expanded Shale, Clay and Slate Institute in San Francisco are, left to right, lower picture: Otto C. Frei, president; William H. Thomas, first vice president; Allan P. Taylor, second vice president; L. A. Thorssen, secretary; and Ben F. Park, treasurer. The picture at the right shows Cedric Willson, Texas Industries, Inc., who resigned as chairman of the important technical problems committee, and Carl Rollins, Basalt Rock Company, Inc., who will head up the activities of this committee in the future. Since many of the original research projects for which the technical problems committee was originally organized have been concluded, it was decided at the San Francisco meeting to reorganize the committee on a broader scale.



California Block Firm Gets 4-Hour Fire Rating

Rocklite Products Company, Ventura, California, has announced that an 8-inch concrete masonry wall built with its lightweight units has just passed the severe four-hour fire and hose stream tests. The announcement by T. Don Beason, chief engineer of the company, states that by all standards the wall resisted both the high heat of the four-hour fire test and the severe thermal shock and force of the water stream. The test was performed in the engineering material's laboratory of the University of California in Berkeley.

The Berkeley test was unique in that the same aggregate used to produce the block was also used loose in the cores of the wall as insulation. It is believed that the effectiveness with which the block wall resisted both heat and thermal shock indicates refractory qualities worth considering in other applications.

New York Block Men Meet

The New York State Concrete Masonry Association held its annual meeting October 11-12 at the Hotel Roosevelt, New York City, New York. The meeting program included a demonstration by Carl A. Menzel

of the Portland Cement Association showing the importance of determining the moisture content of concrete masonry. A joint presentation on the NCMA laboratory and office building project was also made by R. E. Copeland and Fred W. Reinhold.

Other features of the two day program included a color and sound movie showing the production and use of Waylite lightweight aggregate, a safety demonstration by representatives of the New York State Insurance Fund, and an address by Peter Blake, architectural editor, *House and Home* magazine, on the place of concrete masonry in contemporary house architecture.

Buehner Block Installs Fourth Autoclave

The block curing capacity of Buehner Block Company of Salt Lake City has been boosted by one-third with the delivery of the firm's newest autoclave. Considerably larger than the three cylinders already in service, the new unit was built to Buehner's specifications by the local plant of Chicago Bridge and Iron Company.

The autoclave is said to incorporate a new type of quick-acting safety door never before used by the concrete block industry.

NCMA to Hold More Regional Conferences

The Chicago office of the National Concrete Masonry Association has announced definite plans for further sales and merchandising conferences similar to the one held recently in Chicago. The northeastern regional conference will be held at the Hotel New Yorker, New York City, on November 16, and the southeastern regional conference will be held at the Atlanta Biltmore Hotel in Atlanta, Georgia, on November 29.

Although the program of the New York and Atlanta conferences will be similar to the one held in Chicago, the association's announcement indicates that speakers and panelists will be selected from the regions in which the meetings are being held. In this way it will be possible to discuss sales and merchandising problems peculiar to the particular regions.

The sales and merchandising conferences are being held under the chairmanship of W. P. Markert, director of promotion for NCMA. The meetings are designed to assist member company personnel in extending the uses of concrete masonry through new and improved promotion and educational methods.

Southwestern Block Men Meet at El Paso

Members of the Texas Concrete Masonry Association and the New Mexico Concrete Products Association held a joint meeting at El Paso, October 15 and 16. The program for the two day meeting included addresses by Carl A. Menzel of the Portland Cement Association, and Earl Peterson, president of the National Concrete Masonry Association. Ervin Hahn is president of both groups.

Gutschick Joins Lime Assn.

Kenneth A. Gutschick, former associate editor of *Rock Products* magazine, has joined the staff of the National Lime Association in Washington, D.C., as manager of its technical service section. In his new position, Mr. Gutschick will devote his activities to research, promotion and publicity on burned lime products in all fields, and will assist Robert S. Boynton, general manager of the association.



Prestressed Airplane Hangar

● The airplane hangar pictured above is believed to represent the first use for this purpose of Leap prestressed concrete double tees supported by cantilevered prestressed concrete girders. The 40- by 320-foot structure will accommodate four planes. The prestressed units were manufactured by West Coast Shell Corporation of Sarasota, Florida.

NOT IN THE SPECS

Skoll

We view with mixed emotions the campaign of the Arizona Lath and Plaster Institute to rid the language of the word "plastered" as applied to those who have imbibed unwisely. Specifically, the institute's executive



secretary has taken arms against the publisher's of Roget's Thesaurus, whose current edition includes "plastered" as a synonym for "intoxicated."

His argument goes like this: "You don't say a person gets shingled, painted or decorated — why say he

gets plastered?" We find the logic just a bit elusive, and we can't see any possible justification for having shingled out (no, we mean "singled out") plasterers for this protective maneuver. So far as we know the bakery industry hasn't flipped its lid over the term "pie eyed," the petroleum people aren't sulking over the common use of the term "oiled," the manufacturers of bedding are taking in stride the expression "three sheets in the wind," paper hangers seem quietly resigned to the fact that people suffer from "hang overs," and painters are bearing up well under the depressing knowledge that every night a fair number of citizens "paint the town".

On Fourth Down, Pun

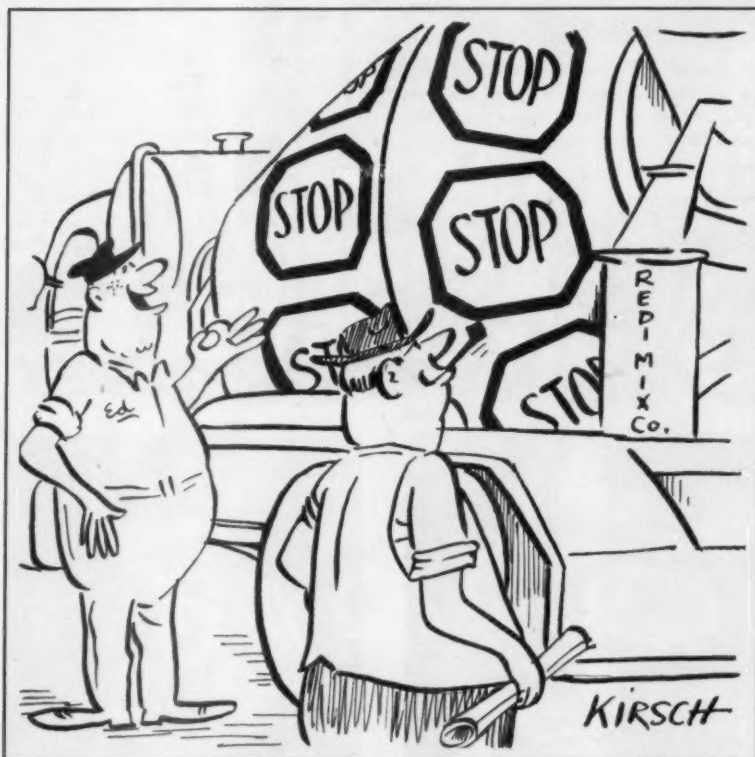
Our attention has been called to a pair of news items that appeared recently in the Dallas, Texas, *Times-*

Herald. Both items had to do with the second annual convention of the Texas Ready Mixed Concrete Association — one under the heading "Steel Figure Will Address Concrete Men," and the other headlined "Concrete Meet Set."

There's really no limit to the possibilities of this school of headline writing. You could have "Concrete Men Pour into City for Annual Convention," "Bars in Demand as Concrete Men Gather," "Concrete Men See Bright Future As They Discuss Slump," or "Concrete to Be Stressed at Dallas Meeting." Indeed, the more we think about it (and we're really trying like everything *not* to think about it), the more it strikes us that the guy who wrote those *Times-Herald* headlines didn't even begin to explore the subject.

Gangwayl

We're fascinated by the story about the construction worker who was taking a buggy-load of fresh concrete up to the top of a building when the elevator cable snapped. Somewhere between the ninth floor, where he was when the cable broke, and the basement, where he wound up a moment later, he managed to curl up in the wet concrete to cushion



● "It gives me quite an advantage in heavy traffic!"



the fall and emerge with nothing more than a few bruises.

He reminds us a little of the old maid who was so afraid of the dark that she could flip the wall switch in her bedroom and get into bed before the light went out. The essence of speed, obviously, is motivation.

Biting the Hand

We can't decide whether it was poetic justice, or maybe a variation on the Frankenstein theme, but a ready-mixed-concrete concern at Waterbury, Connecticut, has been convicted of overloading its trucks as a result of evidence supplied by scales which the same trucks helped to build. Or what's that expression the scholarly use—"Hoist by his own petard"?

Success Formula

*Michigan ready-mix producer
cashes in on boom opportunities
by offering 1-stop service to builders*

In the relatively brief history of the concrete products industries, and especially in the decade and a half since World War II, success stories have been the rule rather than the exception. Success stalked the building products field from coast to coast

and from border to border, and many companies experienced considerable growth just by being receptive to the idea of growth.

What, then, must have been the experience of organizations that ag-

gressively sought and exploited the opportunities presented by the longest sustained building boom in the nation's history? A case in point is the Catsman Company of Bay City, Detroit, Flint, Midland and Pontiac, Michigan.



● **RIGHT:** Samuel M. Catsman, president of the Catsman Company and Raymond M. Catsman, vice president. These dynamic brothers have built the business their father started into a \$14 million builders supply firm, with facilities in five cities in Michigan. **ABOVE:** One of the company's ready-mixed concrete plants, located at Pontiac, Michigan.



The firm has been around a while. It was organized as the Catsman Coal Company in 1908 by Phillip Catsman, father of the present operators. Although some growth was experienced in the early years as the result of the expansion of the business to include builders supplies, the big surge of development started right after World War II. Sensing the certainty of a post-war building boom, the Catsmans (Samuel M., president and Raymond M., vice president) cleared the decks and prepared to meet the resulting opportunities at least half way. The wisdom of this action may be fairly judged in the light of the fact that the annual gross sales of the Catsman Company and its wholly owned subsidiaries now total somewhere around \$14 million.

During this period of rapid expansion the company has widely diversified its product lines and extended its operations into a number of new communities. Today Catsman's network of ready-mixed concrete plants and supply yards includes facilities at Flint, Detroit, Pontiac, Bay City and Midland. At Flint, where the main offices are located, the company also operates a complete building material supply yard, a retail hardware store, and one of the state's major concrete pipe manufacturing plants. Other enterprises include land development and homebuilding by the Catsman Realty Company, a fuel oil and coal firm, an aggregate trucking business, and gravel pit operations in the Pontiac area.

Undoubtedly circumstances favored this rapid growth. But it was the combination of opportunity and vigorous management that helped the company develop within a few short years into one of the largest producers of ready-mixed concrete in the entire state of Michigan. Growth was fostered at every opportunity by stressing product quality, and by giving the same careful attention, fast delivery and technical service to small jobs and large jobs alike. Prompted by the urge to provide maximum service to every customer, the company believes its primary mission is to provide the builder a one-stop service which can take care of all his requirements.

It would seem to be as good a formula for success in the ready-mixed concrete business as anyone is likely to hit upon. As evidenced by the accompanying pictures, at any rate, it would appear to be doing a fine job for the Catsman companies.



● Here is one of the fleet of Catsman ready-mix trucks, handling part of the state of Michigan's highway development program.



● The Catsman operation offers as part of its service to builders a retail hardware store at Flint. The building also houses company offices.



● One of the state's major concrete pipe manufacturing plants is the Catsman Concrete Pipe Company at Flint. Pictured is the storage yard.

Admixtures for Block Concrete

By WILLIAM GRANT

Consulting Engineer

THE ADDITION OF VARIOUS MATERIALS as admixtures for use in mass concrete has been employed with varying degrees of success for many years. Their addition does not entail any revolutionary practice in the use of portland cement, but they are added primarily as a means of obtaining better concrete under average conditions of production.

The practice of using admixtures in concrete block mixes has been gaining momentum, and block manufacturers are confronted by problems in the selection of such materials because of claims such as greater plasticity in the mix, accelerated curing time, improved water resistance and greater strength.

A number of new chemical plasticising and wetting agent preparations in solid and liquid forms are now on the market. Tests have shown that some of these preparations produce beneficial results, but the benefits obtained can only be ascertained by actual plant experiment.

Where the use of admixtures or substitute materials is contemplated, they should be investigated individually to determine whether they are applicable to the particular aggregate used, and also whether they perform satisfactorily under individual plant conditions. It should not be assumed that the same admixture, used with different aggregate, curing conditions, and other manufacturing techniques will perform exactly the same in all cases.

There seems to be difference of opinion among block manufacturers as to the merits of admixtures in general, and particularly in respect to different types and proprietary brands. Research on the use of admixtures in block manufacture has been neglected, and the results given by admixture manufacturers in their advertising literature apply mostly to plastic concrete cured under normal conditions. For that reason it is doubtful if these results are always applicable to relatively dry mixes cured at high temperature.

From the results of an extended series of tests made under plant conditions on both solid and liquid admixtures, it was found in some cases that beneficial effects were obtained in concrete block mixes. However, where only slightly greater compressive strengths were obtained over those of plain concrete, an equivalent increase in strength resulted from the addition of extra cement in place of the admixture at about the same cost.

It is a proven fact that often the benefits claimed for the use of admixtures for block concrete can be obtained by simply giving more attention to the grading and proportioning of the aggregate being used.

FLY ASH—The use of fly ash as an admixture in masonry unit concrete has aroused great interest in this material in recent years. Many fly ashes have been found to be highly pozzolanic, that is, while they are not cements by themselves, they have the property of combining with the hydrated lime released during the hydration of cement to form insoluble cementitious compounds. The pozzolanic activity of different fly ashes varies greatly, but all have the same characteristics, namely, that at normal atmospheric temperature the reaction takes place slowly but continuously for a long period.

The properties of an individual fly ash are largely determined by the type of coal burned, the pulverizing equipment, the make and type of boiler, the air-fuel ratio and the type of collectors used. Therefore, fly ash may be defined as that portion of the finely divided residue (ash) resulting from the burning of pulverized coal, normally carried in suspension in the flue gas and collected by precipitators. It is comprised largely of nearly spherically shaped, smooth, glassy particles. The fineness and partially spherical shaped particles of which many fly ashes are composed contribute to increased workability and cohesiveness of the fresh concrete.

Fly ash should have a fineness at least equal to that of portland cement. The color ranges from dark grey to light grey or tan. The material varies in chemical and physical properties which determine whether a particular fly ash will be suitable for a specific purpose.

No large scale use of fly ash should be undertaken without a laboratory check on the particular material available to determine its uniformity. Every fly ash which meets the ASTM specifications will not necessarily have a beneficial effect in a concrete products plant.

Some fly ash, like some poor cinders, may prove of little value and may even be harmful to the concrete. Stoker fly ash should not be used because of its high carbon content, usually around 50 per cent, and because of its coarse grading.

ASTM tentative specification for fly ash as an admixture for use in portland cement concrete, C 350-54 T, designates 12 per cent as the maximum loss on ignition (carbon content). Less than 6 per cent is considered advisable. A fineness of approximately 80 per cent passing the 325 mesh sieve is acceptable. Its fineness is probably one of its most important characteristics.

Following are shown the minimum and maximum percentage ranges of the various chemical constituents found in samples of fly ash from different plants throughout the

country:

Chemical Constituents	Minimum	Maximum
Si O ₂ — Silicon dioxide	35.68	49.37
Al ₂ O ₃ — Alumina	18.52	28.01
Fe ₂ O ₃ — Ferric oxide	9.57	27.16
Ca O — Calcium oxide	0.85	7.55
Mg O — Magnesium oxide	0.20	1.29
S O ₂ — Sulphur trioxide	0.66	2.97
Alkalies	0.94	2.25
Loss on Ignition — Carbon	1.79	29.17
Retained on 325 mesh sieve	11.10	37.80

Fly ash high in SiO₂ and Al₂O₃ content is preferred. In view of all the possible variations which can affect the chemical and physical properties of a fly ash, fly ashes should be considered as individual materials rather than being a class of materials whose properties are similar.

Laboratory and plant experiments have demonstrated that the order and manner in which the materials of the charge are mixed have a decided effect on the strength and texture of the block.

With sand-gravel aggregate it is recommended that the fly ash be added gradually to the ordinarily damp aggregate already in the mixer and the mass mixed for one minute. The cement is then added also in a gradual stream and mixing continued for another minute. Next the predetermined total volume of mixing water is added in a fine spray and mixing continued for an additional six minutes, a total mixing time of eight minutes per batch.

With porous or lightweight aggregate, 50 to 70 per cent of the total mixing water should be incorporated with the aggregate before the addition of fly ash or cement is made. The precautions as outlined above should be observed.

The economy of using fly ash is greatest when it can be purchased and handled in bulk rather than by the sack. Results with fly ash either as an addition to or as a partial replacement of cement vary depending on the qualities of the fly ash, type of aggregate, curing temperature, length of curing cycle and on the type of cement. Fly ash has been found particularly beneficial when the concrete is lacking in fines. It is therefore advisable for the block producer to conduct tests before deciding whether or not fly ash may be used to advantage in his operation.

When a good grade of fly ash is available, its special characteristics should be taken advantage of for betterment of product. These advantages, under proper plant operation, are: improvement in strength, surface texture, workability of mix and reduced cracking and breaking of units in handling. Other features are, less tendency of concrete to stick to pallets and molds, and a reduction in abrasion of mold boxes, mixer liners and blades when abrasive aggregate is used.

Fly ash may also be used to replace moderate percentages of portland cement. No general rule can be set forth for an established amount of fly ash to be used in all block plant concrete mixes. Variations in the type and grading of the aggregate and other factors, also the fly ash itself make it necessary to ascertain the amount of fly ash which will give the most satisfactory results.

The usual method is to redesign the mix by including fly ash to replace up to 25 percent of the cement. Such replacement is usually on a pound for pound basis though some operators use 1¼ to 1½ pounds to replace 1 pound of cement. The weight per cubic foot for fly ash is approximately 75 pounds, for cement 94 pounds.

The strength and rate of strength gain of the concrete is largely dependent on the moisture present, the temperature under which the reaction is promoted, and

the reactivity of the fly ash being used.

The temperature at which blocks are cured has an important influence on the amount of fly ash which may be used in a mix without adversely affecting the strength of the block. Since low temperatures slow down the hardening rate of the concrete, it is important that block manufacturers using fly ash should test their products frequently during the winter months. This is particularly true where high-early-strength cement is used. The substitution of fly ash for high early strength cement will have a greater slowing effect on the rate of hardening during the colder months than during the warmer months.

At normal temperatures the pozzolanic action of fly ash is generally slower than that of the cement hydration, but continues for a longer time. Hence a weight-for-weight substitution of even a small amount of fly ash for portland cement may result in lower early strengths under normal 70 degrees F. curing temperature. However, at temperatures of approximately 160 to 190 degrees, amounts of fly ash ranging up to 30 percent of the cement content may be used, because the pozzolanic action is greatly accelerated.

With a steaming temperature of 190 degrees F., certain precautions must be observed. In general practice steam is delivered in a dry saturated condition. As the temperature of the air rises above the equilibrium temperature of the kiln, say to 190 degrees F., this would cause a transfer of moisture from the block to the air. It is therefore necessary to supply additional moisture to the kiln atmosphere, either by fog spray or other means in order to avoid drawing moisture required for proper curing from the block.

Where high pressure steam curing is used, the accompanying temperatures are generally in excess of 300 degrees F. At those elevated temperatures (in saturated steam) the pozzolanic reaction between fly ash and cement is further accelerated. In some high pressure curing plants fly ash and cement are used on a fifty-fifty basis.

Therefore, the temperature of curing block has an important influence on the amount of fly ash which may be used in a mix. These factors can be determined by experiment for the individual plant.

HYDRATED LIME—When added as a plasticizer in block mixes, hydrated lime produces optimum results when the weight of the quantity added is limited to 5 per cent of the weight of the portland cement content. When this quantity of lime is exceeded, the result will be a decrease in strength of the finished product. Hydrated lime is a diluent and must not replace any part of the cement.

NATURAL CEMENTS—Natural cements were produced for many years prior to the development of portland cement. They are produced from natural "cement rock" which has a composition similar to that of the portland cement raw mix. The cementing properties of this type of rock are developed by burning at a temperature slightly below that used for the production of portland cement.

The properties of natural cements, however, vary widely among themselves, but generally, when used as an admixture in block concrete mixes, they produce cohesiveness or fattiness and increase the factor of workability of harsher mixes. Their disadvantages are slower setting and hardening properties, lower strength results and a higher water requirement for a given consistency.

Plant experiments using natural cement as a replacement up to 20 percent of the portland cement in the mix, produce good textured units without materially impairing the compressive strength.

CALCIUM CHLORIDE—The addition of calcium chloride

to portland cement does not change the general process of hydration. It permits an earlier start of the hydration process provided there is an adequate moisture supply.

The addition of calcium chloride reduces loss of moisture during the early hydration by releasing the normal heat of hydration at an earlier period and thereby accelerating the hydration. This reaction develops a greater strength than normal during the early hardening period.

The reactions between calcium chloride and cement are given as follows:

Calcium chloride used as an admixture in concrete is absorbed by the cement grains and is partly used up in the hydration of the cement. What probably happens is a chemical combination of calcium chloride and the tricalcium aluminate to form calcium chloro-aluminate. The addition of calcium chloride increases the heat contributed by di-calcium silicate and tetra-calcium aluminoferrite. It decreases the heat from tri-calcium aluminate, but has little or no effect on the heat contributed by tri-calcium silicate.

Too much dependence should not be placed on calcium chloride as a freezing preventative. It is not an adequate anti-freeze agent in any concentration permissible in the concrete mix. Its use should be considered rather as an accelerator to hasten hardening.

Calcium chloride is best introduced into the mix in a liquid form as part of the mixing water. When used in the dry form it is preferably added directly to the aggregate rather than to the cement.

A convenient strength solution is obtained by dissolving 100 pounds of flake calcium chloride in 25 gallons of water. This produces a solution containing one pound of the salt to one quart of solution. The salt should be added in successive increments to the water for best results. For average conditions two quarts of solution per sack of cement will give the proper proportion. During freezing temperatures and with cold aggregates, amounts up to four pounds may be used with safety.

When used either as flake or in a concentrated solution care should be taken to avoid its coming in direct contact with the cement; otherwise flash set may occur with that portion of the cement with which it is in contact.

Contact with air for an appreciable time will cause calcium chloride to take up moisture and become lumpy. Lumpy calcium chloride should not be used other than in solution for use in concrete.

DIATOMACEOUS EARTH—The effect of this inert siliceous material as an admixture in semi-dry concrete mixes has been demonstrated by laboratory and plant testing. It is a finely divided lightweight mineral powder sold under several trade names. Though it does not possess any cementing qualities of its own, yet in combination with the free lime of the cement it accomplishes its desired purpose of adding strength and workability to the harsher aggregates with the attendant advantages of uniform distribution of the cement, giving an even coating of the matrix and thus producing uniformly homogeneous and dense concrete. The lubricating action causes the particles of aggregate to arrange themselves so as to produce maximum density, thus eliminating honeycombing or bridging. Its advantages as an admixture are best obtained when used in quantities of 3 to 4 per cent by weight of the cement content.

SAND—Though sand is one of the basic constituents of concrete it may under certain conditions be considered as an admixture when used in conjunction with lightweight aggregates. Sand addition gives a stronger and more workable concrete and tends to prevent segregation

of the coarse and fine aggregates. Likewise the sand combines with the cement to form a more plastic matrix which coats and binds the coarse aggregate together.

Unlike lightweight aggregate fines, the sand tends to hold water in suspension where it can combine freely with the cement particles. A characteristic of sand-cinder or other lightweight aggregate concrete is that its consistency is different from that of similar concrete without the addition of sand. Sand produces workability and density in the mix. Although it increases the weight of the unit over that of plain concrete made from similar aggregates, its judicious use is beneficial.

When concrete with sand addition is to be used, it is advisable to have the mix as wet as the machine can handle, short of producing slump of the finished units.

Actual plant experience indicates that approximately a 20 per cent by volume addition of sand will increase the strength of the units considerably, while the weight will be increased approximately 3 pounds in the standard unit.

A well graded medium coarse sand ranging in fineness modulus from 2.50 to 2.70 is recommended. An exceedingly fine sand should not be used since it will require considerably more cement than a coarser sand to obtain a similar increase in strength.

Admixture Types

Admixture materials may be classified in various groups of agents, which in some cases overlap each other as follows: Accelerators, cementitious materials, plasticizers, pozzolans, waterproofing agents, and other inert powders.

ACCELERATORS—Calcium chloride, because it is economical and easily procured, is the most widely used material which is typical of this group. Many liquid preparations sold as integral hardeners under special brand names are essentially calcium chloride solutions.

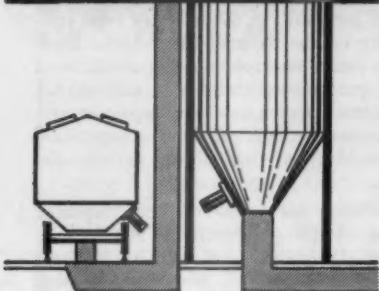
CEMENTITIOUS MATERIALS—Natural cement and hydraulic lime react with water to form cementitious hydrated compounds. Hydraulic lime is more or less impure lime which has been subjected to higher burning temperature than ordinary lime. Pure lime is not hydraulic, but falls in the class of inert admixtures.

PLASTICIZERS—Little information is to be found on these materials. Such materials are sold under trade names without disclosure of their contents. Generally, they are protective colloids or surface tension reducing agents.

POZZOLANS—These are either of natural or artificial origin and are highly siliceous materials. They are not cementitious in themselves, but have the property of combining with lime (in the presence of water at normal temperature) freed by the hydration of the cement to contribute strength to the concrete. Therefore any siliceous material having this property may be termed pozzolanic. Pozzolanic admixtures react in the same manner as the finely divided powders. Fly ash is an artificial pozzolan. Diatomaceous silica, sold under several trade names, is a material of natural origin.

WATERPROOFERS—These preparations are essentially made from stearic acid in emulsion or other form combined with calcium, sodium or other salts. Cheaper preparations may contain fatty acid compounds.

INERT MATERIALS—Finely divided materials of natural origin such as diatomaceous silica, hydrated lime and bentonite in small percentages of the weight of the cement have been recommended for the improvement of plasticity and workability of concrete.



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One Cleveland LSRR Vibrator will do two jobs for concrete plants. It can be used to unload cement from covered hopper cars, and then switched to trackside storage to guarantee a full flow from this bin.



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Available in four sizes and capacities to meet your individual needs, Fleming Skip Hoists work efficiently with any make block machine. They are rugged, compact, automatic. Eliminate spillage, prevent segregation. Sturdy all-steel construction assures long, trouble-free performance.

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UHF for Denver R/M

ALMOST complete elimination of wasted time, expensive cross-trips, and costly errors are among the advantages which Ready Mixed Concrete Company, Denver, Colorado, has gained through installation of an elaborate ultra-high frequency radio inter-communication system.

Completed May 15th, the network consists of two way radio communications equipment in 42 mixer trucks, plus three base stations located in the headquarters building and batching plants of the firm. Also incorporated some 15 miles west of Denver is a repeater transmitter which is located high atop Lookout Mountain. The 50 foot transmitting antenna, mounted some 3,500 feet above the plains to the east, insures a powerful signal, evenly covering the entire Denver area and suburbs within a radius of 50 miles. The need for such a system has long been evident in ready mix operations, according to Frank Spratlen, Jr., head of the firm, but it was delayed until electronic development of ultra-high frequency equipment at a reasonable cost was completed. In a frequency band well above the interference from police broadcasts, taxi-fleet dispatching, and other troubles which have besieged such radio networks in the past, this system operates on 460 megacycles, an extremely high band of sharp definition that is completely free of interference. Along with the frequency choice, the system selected has additional advantages in the fact that "miniaturization" of tubes,

condensers, amplifiers, and other components make it possible for small table top sets to be used at each of the three batching plants, plus another at the garage, for adequate radio control without the need for large amounts of space.

The installation is a "conference network" in that all speakers are in constant operation throughout the system so that each driver hears all communications being relayed between all points. Drivers, of course, are contacted by number and respond via the military type coil-cord microphone, hung on the dash of the vehicle. Each of the three batching plants controls a separate division of trucks while the garage superintendent utilizes his transmitter to coordinate maintenance and repair operations, to receive emergency calls from drivers experiencing breakdowns or mechanical difficulties, and to dispatch service vehicles.

In operation the system makes use of the "repeater principle". The waves of energy generated at the base stations are beamed to the repeater station on Lookout Mountain, where they are amplified, frequency shifted, and retransmitted via the 50 foot tower over the entire area to the east. Since ultra-high frequency has line-of-sight characteristics, it requires extremely high elevation of the transmitting antenna to overcome the curvature of the earth, a difficulty easily solved in the case of the



Denver installation, with its conveniently located Lookout Mountain. The downward spread of the high frequency radio impulses likewise has eliminated the "skip problem" which led to static, interference, and poor reception in bad weather.

From the first day of use, the system has proved itself all that had been expected, according to the Ready Mixed Concrete management. Specific instances involve the transfer of surplus aggregate from one site to another where the batch is running short, shuttling of vehicles in emergencies to meet construction problems which might have otherwise caused a long delay, and quick replacement of mixer trucks in operation in remote areas when mechanical difficulties develop. The driver who encounters unexpected problems can simply pick up his microphone and ask for instructions instead of having to drive several miles to find a telephone.

The even, clear-signal coverage which has been developed by the 460 megacycle system has proven so effective that there have been absolutely no instances in which a driver could not be reached when needed.



COMMENT

from the
BUTLER ENGINEER

Of Wheelbarrow Batching and Non-existent Ready Mix

Planning for the Road Show put my mind in a reminiscent gear . . . the days when batching was done by piling materials in long windrows: so many wheelbarrows of sand, so many of stone plus a couple of bags of cement—as an afterthought. This hash went to a steam-driven, steel-wheeled paver—remember?—The boys laid planks ahead for it to run on.

Then came wooden aggregate bins that discharged (still volumetrically) to mule drawn wagons. Bins were carpentered on the job.

The founder of this company, (Mr. B for short) was then a paving contractor. He developed a bin gate that had a unique characteristic: it worked. Then he designed a batcher and a steel bin . . . Mr. B paved in summer, built bins in winter—and pioneered in *weighing* batchers in both seasons.

Next development: bulk cement and great coyness by the engineers to accept it. *So Mr. B and Company developed the interlocked batcher.* Supervisory opposition said, "OK—and our blessing." Pretty important, wasn't it!

What about Ready Mixed Concrete? Man! In those days it was as non-existent as the babies to be born in 1977. Maybe that industry owes a tip-of-the-hat to Mr. B. I mean the Ready Mix industry.

When I think of the new Butler 0-1-0 one man operated, automatic Roadbuilders Plant and its calm command of 2 hungry 34E dual drum pavers . . . and of punched-card batching for Ready Mixed Concrete, I see how far we've come since my whiskers were fuzz.

Want more history? Write to

The Butler Engineer

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Protective Coatings



Baltimore, Maryland—Mr. Robert L. Henry, Manager of the
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If you operate a batch mixer, you will want to read the recommendations of the National Concrete Masonry Association for combating . . .

Mixer Hazards

The most dangerous piece of equipment in a concrete plant is the mixer. It presents three major hazards to life and limb: the possibility of a mixer being turned on when someone is cleaning or repairing it; the chance of catching a worker in unguarded motor shafts, drive pulleys and belts on a running mixer; and the danger of the operator being hurt by the rotating blades of the mixer when he is taking samples.

Each hazard can, with proper precautions and thorough training of employees, be reduced or eliminated. Here are a few of the methods that seem to get results:

1. Locate electrical switches so that there is no possibility of confusing them with the switch of any other piece of equipment.

2. Establish and enforce the safety rule that no one may enter a con-



Figure 1

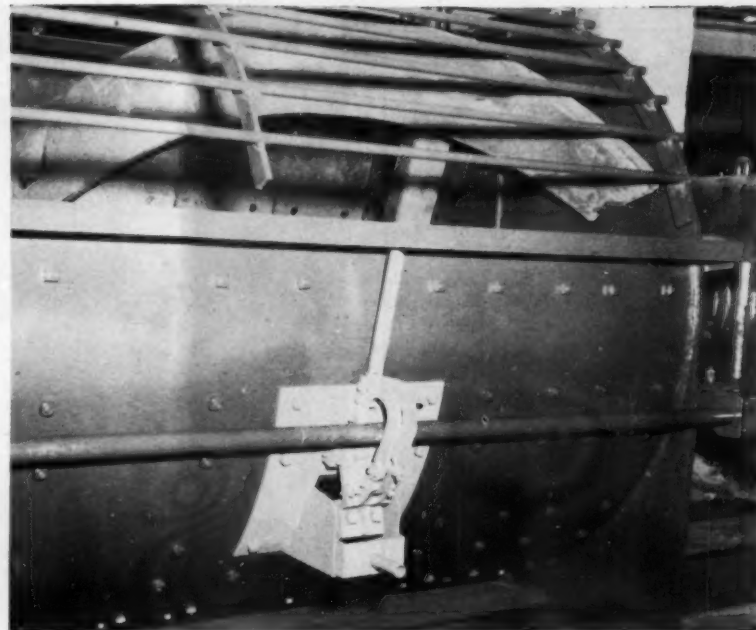


Figure 2

crete mixer until its switch is off and positively locked or guarded. If the mixer is turned off for a brief period, an employee should be posted at the electrical switch to keep anyone from turning it on. For longer shut-downs, electrical switches can be locked in the off position by one of several means. While colored tags placed on the switch, a shunt across the switch terminals, and the removal of line fuses all serve as warnings that someone is working on the line, they are not positive protection against accidents. It has happened before that other maintenance men have replaced fuses and reconnected lines, not realizing that these were not out of order.

Special lock-out switches which require a certain key to turn them on are available. These are dependable only when the key is removed from the lock as soon as the machine is turned off, and as long as duplicate keys are carefully guarded. Most switches can be locked out by the device shown in Figure 1 — where each repair man puts his own padlock in, keeping the machine from operating until everyone is clear of it. Again, duplicate keys must be kept under control, usually by the plant superintendent.

3. Careful attention to machine guarding will eliminate injuries from contact with moving parts. The best guards are those that are built into the machine when it is

purchased; but well-constructed guards made in the plant are serviceable. Though the most efficient guards allow treatment and oiling to the parts they enclose while in place, sometimes it is necessary to remove other types. If they must be taken off, it is vital to remember that the repair job is only complete when the guard is back in place.

4. With the new developments in moisture control and in sampling implements, it should never become necessary to take hand samples from a running mixer. Figure 2 shows a sampling device by which the operator, raising the handle to the position shown, can withdraw a scoop of wet mix from the mixer. After closing the door, the scoop is removed from its holder and the sample can be dumped back into the mixer. The door lever locks in both the open and closed positions so that it cannot be opened by internal pressure. Another practical measure is a small hole — about one and a half inches in diameter — in the side of the mixer, through which a ribbon of concrete will extrude. The hole is kept closed at other times by means of a pivoted plate on the outside of the drum.

While there are other hazards connected with mixer operation, these three are the major ones, the ones most closely related to everyday operation. Proper safety measures to protect employees from these dangers can greatly reduce the accident incidence in concrete plants.

Dodson's Digest



Dick Adams solves a highway-paving crisis

I was driving through a road-repair zone the other day, when suddenly I spotted a man on the highway in front of me wildly waving a red flag. I stopped the car, and Dick Adams came running toward me. Dick is a paving contractor, and a good friend of mine.

"Am I glad to see you, Dod!" Dick exclaimed. "I recognized your car, and..."

"I don't get it," I said, puzzled. "What's the idea of flagging me down?"

"We were almost finished for the day," Dick explained, "when we ran out of Calcium Chloride for our concrete. I've got some coming in the morning, but I wondered if you'd happen to have..."

"You're in luck," I grinned. "I always carry a bag of Calcium Chloride in my trunk for just such emergencies."

Dick's men got the bag and went on with their work. I stayed around for a while talking to Dick.

"I'm glad you came by, Dod," Dick said, after things got under way. "Because I wouldn't pour an inch of concrete without Calcium Chloride. These highways need that extra strength to..."

"And don't forget," I chimed in, "Calcium Chloride gives you increased workability—less water for the same slump. What's more, you get faster set, and..."

"You don't have to sell me, Dod," Dick laughed, "Calcium Chloride has saved me plenty of time and money over the years!"

"Well," I said, "I'd better be on my way. I'm late now, and..."

Just then, one of Dick's crew walked by carrying a "road closed" sign.

"Oh, oh!" Dick said, grinning sheepishly. "I'm afraid you'll have to go back up the road and take the detour. We used your Calcium Chloride for some repair work up ahead, and now you can't get through!"

"Now that," I chuckled, walking back to my car, "is what I call real gratitude!"

— L. D. DODSON

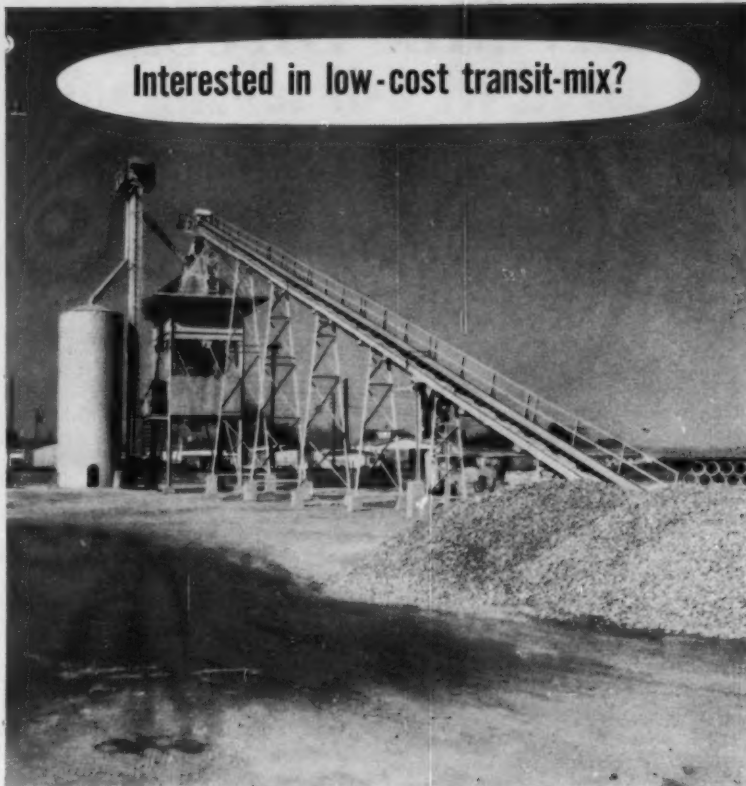
P.S.—Our folder, "How To Make Better Concrete Products and Ready-Mix," is packed with information on how to use Wyandotte Calcium Chloride in concreting. Drop me a line, and I'll send you a free copy by return mail. Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in principal cities.

Wyandotte

CHEMICALS

MICHIGAN ALKALI DIVISION

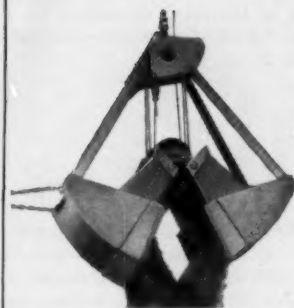
HEADQUARTERS FOR CALCIUM CHLORIDE



Interested in low-cost transit-mix?

Take a quick look into this efficient set-up. Plant is built around a Johnson 120 cu. yd., Step-by-Step bin, with 4 aggregate compartments and central cement tank. Aggregates are fed to plant by inclined conveyor. (This type bin also suitable for charging aggregates with bucket elevator.) Pivoted distributor at top of plant directs the flow of aggregates into proper bin compartment.

110-bbl. central cement tank accommodates 1 or 2 types of cement, and is charged by vertical bucket elevator. 2-way valve at elevator head-section feeds cement, as needed, into bin or to ground-storage silo. Johnson Concentric aggregate-cement batcher weighs out all materials at top speed, and with pinpoint accuracy. This Johnson plant is available in 60 or 120 cu. yd. sizes; also can be arranged for central-mix or concrete products operation—with manual or push-button controls. For more complete information, contact your Johnson distributor, or write us.



For charging bins . . . stockpiling sand and aggregates, check Johnson wide-rehandling Clamshell Buckets . . . B sizes, from 3/8 to 2 cu. yds. They're all-welded, smooth inside and out . . . fast-filling, quick-cleaning. Manganese cutting edge toughens with use. Other types and sizes up to 3 cubic yards.

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Ready Mix Directors

*hear progress reports on
public relations program and on
plans to promote product for highways*

AT THEIR SEMI-ANNUAL MEETING held in October at Del Monte Lodge, Pebble Beach, California, directors of the National Ready Mixed Concrete Association heard two important progress reports, one by the recently formed committee on public relations and the other by a staff member of the Portland Cement Association concerning the NRMCA — PCA program for promoting use of ready mixed concrete in highway and street construction. Action was also taken, after due discussion, to approve a fourth revision of the Truck Mixer and Agitator Standards of the Truck Mixer Manufacturers Bureau, subject to certain revisions to be made by the Bureau. The proposed revision had previously been the subject of thorough discussion by a special 14-man committee composed of association members.

In his progress report for the committee on public relations, Ralph H. Anderson, Chairman, disclosed some preliminary information developed by a recent association questionnaire on public relations problems. Of the plants covered in a preliminary tabulation, approximately 10 percent reported having been restricted in their operations by zoning ordinances. The most common restriction reported was on the use of streets by ready-mix trucks. Some of the returned questionnaires, however, also reported restrictions as to hours of operation. About 7 percent of the plants covered in the report are subject to air pollution laws, and an equal fraction anticipate the enactment of such laws in the future. Some other findings in the survey:

DISPOSING OF WASH WATER. According to the reports covering 136 plants, the most common method of disposing of wash water is by dumping it in a private pit or dump. This was done by 32 percent of the plants. On the other hand, 31 percent of the plants use some form of settling tank or seepage pit to dispose of the wash water. Of the reporting plants, 17 percent indicated that they followed

such practices as dumping the water into rivers, creeks, or other public bodies of water, or by putting it into the sewer system without first eliminating the solids. Only 9 percent reported that they had encountered problems in relation to the disposal of wash water. Half of this number traced the cause of their problem to inadequate elimination of solids in the settling tanks.

LEFT-OVER CONCRETE. Yard paving or plant improvement was the means used by 34 percent of the plants studied for disposing of left-over concrete. On the other hand, 25 percent reported merely dumping left-over concrete into some private dumping area, and 19 percent indicated the use of such concrete as fill or grading material, while 13 percent make concrete block and other products. A number of companies reported donating left-over concrete to local individuals or groups, or giving it to the drivers of their trucks.

BASIS FOR COMPLAINTS. The most frequent basis for complaints concerning ready-mixed-concrete plant operations was the dust and dirt created; 16 percent of the 136 plants studied indicated receiving a substantial number of complaints concerning this problem. Noise was indicated as a cause for complaint by 12 percent of the companies, while only 3 percent reported that the appearance of their plants had been the occasion for complaints. Almost half of the companies reporting complaints concerning some phase of their plant operations, indicated that the source of such complaints was in the area immediately adjacent to the plants.

STREET RESTRICTIONS. The ready mix trucks of 56 percent of the 136 plants used in the tabulation had been restricted in one way or another in the use of streets. Substantial complaints about spillage and dirt from ready-mix trucks were received by 28 percent of the plants, and 12 percent had experienced complaints about the noise made by the trucks

outside the plant area.

TRUCK SPEEDS. Of the 136 plants, 16 percent received substantial numbers of complaints concerning excessive speed of their trucks. In many cases it was felt complaints of this type could be directly traced to the easily recognized nature of a ready-mix truck. This consideration was believed to be an important factor in many of the complaints involving other aspects of ready-mix concrete truck operation.

PUBLIC RELATIONS PROGRAM. Only 46 percent of the plants tabulated reported that they had any program to enlist good will of the communities in which they operate. An astonishing 36 percent indicated that they do not have a safe driving program, and only 25 percent have made any effort at all to develop good relations with the public press; 25 percent reported that they belonged to no organizations of a civic, community, fraternal, charitable or business nature on a local level.

Indicative of the association's deep concern with broad problems of public relations, the Board of Directors voted unanimously to appropriate the sum of \$10,000 to carry on the work of Mr. Anderson's committee on public relations.

The progress report on the joint NRMCA — PCA program for promoting the use of ready-mixed concrete in highway and street construction was presented by George Paris, assistant to the vice president for promotion of the Portland Cement Association. He told briefly about a series of ads financed jointly by PCA and local ready-mix producers in St. Paul as a pilot study. These focussed attention on the need for alley pavements. Another pilot study in Akron, Ohio, started with a formal presentation to city officials and the production of a printed brochure.

Mr. Paris also made reference to two other PCA promotional undertakings, one consisting of a post-card series on the handling of concrete, and the other a picture sequence urging contractors to be ready for concrete when it is delivered.

The revised Truck Mixer and Agitator Standards of the Truck Mixer Manufacturers Bureau, approved by the Board of Directors of NRMCA during the Pebble Beach Meeting, will become effective on May 1, 1957. Some of the important provisions are as follows:

MIXER AND AGITATOR UNITS. The size of the unit shall be designated on a standard Bureau rating plate by a number which is equal to the rated

capacity in cubic yards when operating as a mixer or agitator. A lower agitator capacity may be established by the manufacturer and shown on his data plate. To qualify for a rating plate, the unit must conform to the requirements of these standards.

TYPES OF MIXER AND AGITATORS. Three types of mixers and agitators shall be standard, as follows: horizontal axis revolving-drum type; inclined axis revolving-drum type; and open-top revolving blade or paddle type.

SIZES. The following sizes shall be standard:

Mixer	Rated Capacity in Cubic Yards of Mixed Concrete When Used as, Agitator
3½	4¼
4	5
5	6¼*
5½	7*
6	7½*
6½	8½*
7	9
8	10¼*
8½	11*
9	11¾*

* Rating plates designating capacity as an agitator only may be issued for open-top type mixers of these sizes.

No intermediate sizes shall be considered standard. However, sizes larger than 9 cubic yards in increments of 1 cubic yard only will be regarded as standard if they conform to the volume requirements of the standard curves approved by the Bureau June 23, 1944, and as subsequently revised, and to all other requirements of these Standards.

CAPACITIES. The capacity of units as truck mixers or agitators shall be expressed in cubic yards of mixed concrete. Agitator capacities shall be as specified in the table above, except that if a lower capacity is shown on the manufacturer's data plate, that lower capacity shall govern. When methods of loading other than ribbon loading are employed, it may be necessary to reduce the size of the batch from that shown in the table to meet the conditions encountered by the particular type of loading employed.

The Prestressed Concrete Institute has appointed Martin P. Korn to the important post of permanent executive secretary effective September 1. A pioneer in rigid frame design and construction, Col. Korn is a consulting engineer of wide experience.

Bucyrus-Erie Announces New 5-Ton Model H-3 Hydrocrane



10,000-lb. maximum crane capacity, 3/8-yd. clamshell

Bucyrus-Erie Hydrocranes have long been noted for big lifting capacity per pound of crane weight. Now the new Model H-3 Hydrocrane—mounted on a lightweight, low-cost truck—gives you 10,000-lb. maximum lifting capacity. And the new Model H-3 retains short tail swing characteristics that have made Hydrocranes standouts on close-quarter work.

In addition, this all-hydraulic, multi-job speedster has many more outstanding new features that put it even farther ahead of ordinary truck cranes.

New load indicator weighs each load you lift

A new outstanding safety feature is the load indicator and pressure gauge located at the operator's station. He knows at a glance if the load can be safely lifted at the required radius.

Automatic outrigger leg locks eliminate down drift

Vertical outrigger legs have spring-actuated catches which operate automatically to elimi-

nate outrigger down drift during travel. No chains or snap hooks are needed.

New hour meter clocks engine work hours

Better care results from the recording of actual hours of operation... makes it easy for the service man to follow recommended protective maintenance program.

New improved throttle control for smoother operation

Vibration-proof locking throttle control, conveniently located at operator's finger-tips, permits him to lock engine at desired speed.

New truck brake lock

"Mico" electric brake lock holds truck wheels firmly in place while the crane is working.

And this is just the beginning. The new H-3 Hydrocrane has dozens of other new features that will speed your jobs—help you make more money. Get in touch with your Bucyrus-Erie distributor for the full story.

Write today for new H-3 Hydrocrane bulletin.

165H56



SOUTH MILWAUKEE, WISCONSIN

\$ales CLINIC



What You Should Know About Tax Deductions for Salesmen

Because the government seems to feel that it should not cost money to earn it, outside salesmen are now allowed income tax deductions on almost every expense connected with their jobs that comes out of their own pockets. Tax time will soon be here again, and Joseph Arkin, a New York CPA, has offered to guide the selling fraternity through the maze of Form 1040, pointing out money-saving clauses in the revenue laws. He warns, however, that expenses which are deducted are always subject to audit and review by the Treasury Department, and should be meticulously recorded in a desk diary or cash record book.

The Revenue Law of 1954 defines an outside salesman as a full-time salesman, soliciting business away from the premises of his employer, and only returning to the home office to write up orders, use the telephone, and take care of correspondence. Here are some of the things he can deduct from his gross income (salary, commissions, bonuses) to find adjusted gross income on page one of the return — a valuable tax saving feature if he is not fully compensated by his employer for these expenses.

Travel Expenses Away From Home: If his selling duties require travel as part of his job, the salesman can deduct airline, railroad, taxi and other fares; meals, lodging and hotel expenses; tips, telephone and telegraph costs; charges for checking, shipping, retrieving and insuring baggage; costs for a public stenographer to send reports to the home office; cost of attending conventions, if required by his employer; display costs of exhibits, and car expenses.

Automobile Expenses: Here Mr. Arkin suggests that the salesman include a statement explaining the necessity for travel, need for use of a car, and territory covered. Deductible car expenses if not covered by an expense account include the cost

of gas, oil, grease, summerizing, winterizing, auto use stamps, inspection fees, parking, tolls, garage rent, depreciation, interest charges on financing, license plates and driver registration fees, loss on sale of car or damages not reimbursed by insurance, repairs, accessories, towing, AAA dues, and insurance costs. Since the car is probably used for personal pleasure as well as for business use, an allocation must be made on the basis of mileage or time used. Incidentally, the personal portion of taxes, license plates, interest charges and registration fees can be deducted as an itemized deduction on page two of the return.

Entertainment: Dinners, flowers, gifts and liquor expenses necessary to selling are deductible. Entertainment of clients at home can be deducted if records are kept to substantiate the claim.

Other Employment Expenses: If the salesman paid these costs of employment on his own, he may deduct them too — cost of newspaper, mail, and other advertising necessary to solicit business; subscriptions to trade magazines; dues and fees paid to sales or trade organizations or labor unions; business cards, stationery, notices and postage used in employment; allocation of home telephone calls; bonding or similar costs; state, county or city license fees for occupation; embezzlement losses (deducted in year of discovery) which the salesman is required to make good by terms of his employment contract; tips to office personnel, entertainment of office personnel (if motivation is improved handling of accounts!); theft or casualty losses, less amount of any insurance recovery; gifts given for business purposes; legal fees of defending suit in connection with employment, where the salesman is not guilty of any criminal act; fees paid for keeping records, and cost of maintaining

an office in the field where it is of necessity to the relationship with his employer. The government considers such an office as one where there is no home or branch office in the immediate area, and where it would be to the advantage of the employer that some small office space be held. Costs would include rent, cleaning, repairs, telephone, waxing, signs and similar expenses. The salesman may use his home as an office, and a deduction will be allowed if proper records are maintained, and allocation made between personal and business portions of the expenses. Non-business portions of home taxes on real estate and mortgage interest, and interest on certain other house purchases can be used as itemized deductions on page two of the return.

Salaries or fees paid to an assistant; fees paid to an attorney to draw the contract of employment; messenger service expenses; office supplies, postage and stationery used at home or in the office; publicity costs not included in advertising costs; cost of samples; and losses made good to his employer for money collected and lost before remitting it to the firm cashier may be deducted.

Mr. Arkin closes with the comment that our tax structure has grown rather complex. He suggests that the salesman may wish to engage the (deductible) services of a tax attorney or CPA to aid him in preparing his return.

Limbo List

According to all current signs, the psychological tests that were in vogue the last few years are falling from grace. Too many companies found that most of their top salesmen flunked the selling-qualifications tests they were giving their applicants.

Women's Auxiliary

Many firms right now are following a policy, started a while back by one of the bigger corporations, of interviewing not only the prospective employee, but his wife as well. No one yet, however, has mentioned including her name on the pay check. Watch this trend!

Heavy Rain Caused Prestressed Deck Failure

A committee of engineers appointed by the Prestressed Concrete Institute has studied and analyzed the reports made by consulting engineers on the collapse of a prestressed concrete roof deck on the Blankner Elementary School at Orlando, Florida. The committee has concluded that the principal cause of the collapse, which occurred on August 30, 1956, was an accumulation of water on the deflected roof deck resulting from a torrential rain. It is believed that the condition which led up to the failure was greatly intensified by the continuous runoff from the adjoining pitched roof. The report states that the combined effects of this water induced excessive deflections and thus brought greater loads than were anticipated on the prestressed concrete double-T slabs. Lateral pressure was also induced on the walls.

The walls were built of 8-inch concrete masonry units and were 14 feet high without pilasters. They were capped by shallow precast concrete block for deck support, but it is believed that this provision was ineffective for slab anchorage.



NEXT!

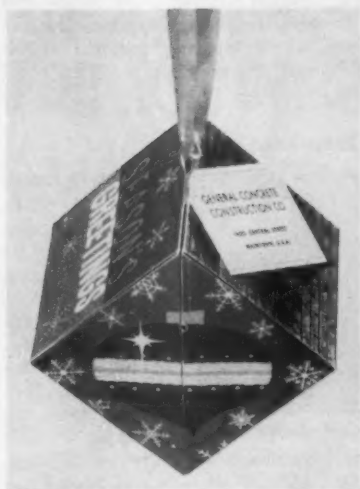
Ordinarily there would be a partially unloaded railroad car in this picture. But the National Car Shaker has finished the job way ahead of schedule and is waiting for the next car. One man easily operates the National Car Shaker from the outside. It eliminates the need for men inside the car. You PROFIT by using the low-cost National Car Shaker.

Write today for full information

NATIONAL CONVEYOR AND SUPPLY COMPANY

358 N. Harding Ave.

Chicago, Ill.



Christmas Cube

● The National Concrete Masonry Association has made up this three dimensional Christmas card for its members to send to their friends. The card, which springs into cube shape when taken out of the mailing envelope, bears the sender's imprint on one of its concrete-block-patterned sides.

MANUFACTURERS' NOTES

Symons Clamp & Mfg.

The opening of a new concrete forming equipment plant at San Leandro, California, representing a major expansion of its west coast operations, has been announced by John Symons, president, Symons Clamp & Manufacturing Company.

The new Symons plant, located at 683 Thornton St., San Leandro, has 12,000 square feet of factory space with an additional half acre of property for a rail spur and storage facilities for the firm's line of shores

and column clamps.

Joseph Van Drasek has been named vice president in charge of the California factory. Assisting him in sales is Richard G. Allen. Robert P. Tross has been transferred from Chicago headquarters to act as chief engineer.

Symons, a pioneer producer of pre-fabricated forms, shores and column clamps, has had nationwide distribution for many years, but has concentrated its activities in the Midwest and East. The California factory is the first to be built outside of Chi-

cago. The firm also maintains warehouses in Minneapolis, Minnesota, King of Prussia, Pennsylvania, and Dallas, Texas.

Edick Laboratories

The appointment of Mr. Robert Beasley as its full time representative in eastern New York, eastern Pennsylvania and New Jersey has been announced by Edick Laboratories, Inc., Milwaukee, Wisconsin. Mr. Beasley will devote all of his time to calling on and working with manufacturers of concrete blocks and concrete products in this territory.

Motorola

Reflecting the growth of its two-way radio and industrial products business in the western states, Motorola recently announced that it is moving its west coast headquarters from San Mateo, California, to a new and larger building at Burlingame, California. The 10,100-square-foot Burlingame facility is in the construction stages and should be completed by November 15. In addition to housing the parts and service department, the modern one-story building will have more than double the previous office area to handle expansion requirements brought about by centralizing regional operations and decentralizing certain administrative procedures formerly handled at the Chicago general office.

Blaw-Knox



P. J. Wolfert

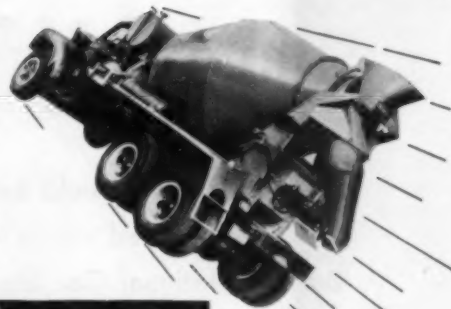
Paul J. Wolfert has been appointed sales manager of the Construction Equipment Division of Blaw-Knox Company, it has been announced by William Rodgers, the company's sales vice president. A native of Warren, Ohio, Mr. Wolfert joined Blaw-Knox in 1939. Including prior associations, he has had 26 years experience in construction equipment engineering and sales, the last 12 years as supervisor of sales in this field to the export market.

Mr. Wolfert succeeds Robert P. McKenrick, who has resigned. Mr. Wolfert will be headquartered at Mattoon, Illinois, at the company's new plant for the manufacture of road paving machinery.

No — the New ROCKET will NOT fly to the moon

25th Anniversary

That's right. And for the sake of honesty in advertising, there are other things the Rocket will not do. It will not operate satisfactorily under water; it will not quadruple your profits within 24 hours; the Rocket's rate of charge will not exceed the speed of sound. The new Rocket will not compete in the 1957 Olympics as a member of the interplanetary space squadron.



But it WILL mix concrete

It will mix it quickly and properly under the most adverse conditions. It will also agitate quite successfully.

Owners (of Rockets) tell us this mixer (1) requires surprisingly little maintenance, (2) has every ease-of-operation feature (at no extra cost).

We honestly believe you'll agree that the Rocket is a fine mixer at a reasonable price that will give you better-than-average performance for a long, long time. *There's a Rocket to fit every Pocket(book), too.*

ALL THESE FEATURES at NO EXTRA COST!

Hydraulic Chute Control is fully automatic. Controls grouped for easy access.

Aluminum Extension Chute attaches to 36" fold-over addition to main chute. Total discharge chute: 12' 6".

Electric Revolution Counter kit included, you can handle

most specifications with the Rocket!

Special Alloy, abrasion resisting steel used at all wear points.

Unobstructed Hopper, for rapid charging, no spilling or waste.

Positive Chain Drive, flexible power, not affected by truck twist, road shock.

Standard Industrial Engine, truck-type transmission. Repair parts readily available.

Three-Point Suspension, one-piece cast steel precision machined ring.

Demand the Badge of Dependability



CONCRETE TRANSPORT MIXER CO.

4993 FYLER AVE., ST. LOUIS 9, MO.
FLanders 2-7890

MAIL THIS COUPON TODAY!

Gentlemen: Please rush full information, prices and terms on the following:

- ☐ New Rocket Revolving Drum Truck Mixer
☐ Hi-Lo Stationary Drum Mixer
☐ Batching Equipment ☐ Water Meters
☐ Material Handling Equipment

Name.....

Firm.....

Address.....

City.....State.....

now available!

GARRISON

POWER STEERING

for White Trucks

Models 3016 through 3028 and

Models WC22 through WC28



4609 East Sheila Street, Los Angeles 22, California

Available in kit form for field installation through White factory Branches, Distributors, and Dealers.

Provides effortless steering—With Garrison Power Steering a hydraulic booster cylinder does 80% of the work of steering. Under adverse road conditions only light pressure on the steering wheel gives driver complete control.

Increases maneuverability—Better steering control enables driver to quickly maneuver in and out of tight places. More work is accomplished each day with far less driver fatigue.

Eliminates jarring road shocks—The power cylinder also serves as a shock absorber, preventing road shocks from reaching the steering mechanism, reducing wear on your equipment.

Available for other makes and models! Garrison Power Steering is available for many makes and models of trucks as factory-approved original equipment or in kit form for easy installation in the field. Ask your dealer or write direct for full details.

Garrison kits have everything needed for installation...can be accomplished in a few hours in even the most limited service shop.



SAVE up to 50% on protection time FOR 2% OF SOLVAY CALCIUM CHLORIDE added to winter concrete



Like your concreting schedule to move equally fast winter or summer? With Solvay Calcium Chloride in your mix, there is no strength loss at 40° - 50°F... no delays in finishing, moving forms, going from operation to operation.

Besides gaining early strength, you actually *increase* ultimate strength by adding Solvay Calcium Chloride, as well as assure uniform curing and greater workability. When ordering ready mix concrete be sure to specify the addition of Solvay Calcium Chloride.



*New handy 25 lb. bag
Easy to use
Assures accurate measure*

*Write for booklets offering
money-making help!*



**SOLVAY PROCESS DIVISION
ALLIED CHEMICAL & DYE CORPORATION
61 Broadway, New York 6, N. Y.**

Please send — at no cost — your booklet:

- ☐ "When the temperature drops BELOW 50°F., do you know what happens to CONCRETE?"
- ☐ "The Effects of Calcium Chloride on Portland Cement".

NAME _____

COMPANY _____ POSITION _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____ CO-11

MANUFACTURERS' NOTES

Richardson Scale

Hart Bandstra has been appointed advertising manager for Richardson Scale Company, according to an announcement from the company. In this capacity he will be responsible for coordinating the company's entire sales promotion program, including all advertising and publicity activities.

Mr. Bandstra is a veteran of nearly 40 years with Richardson, starting with the company in 1918. Prior to his present appointment he was serv-

ice and parts manager from 1923 to 1956, serving as credit manager during the same period, as well as advertising manager from 1924 to 1948.

Wyandotte Chemicals

T. C. Simpson has been named distributor promotional manager for Wyandotte Chemicals Corporation's M. A. Division effective October 1. Mr. Simpson will work directly with the division's distributors, in con-

junction with the company's sales staff, in the development of policies, plans and sales promotional programs.

Baker-Raulang

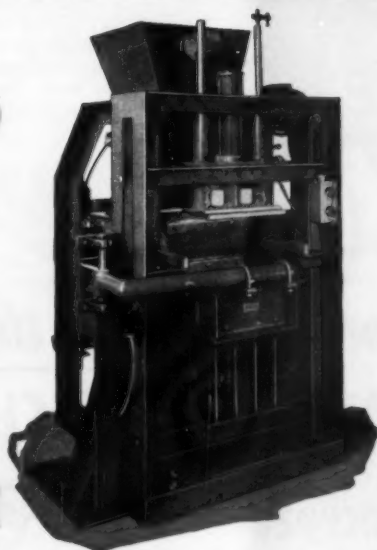
Bohnert Equipment Company, Inc., Louisville, Kentucky, has been named distributor for the materials-handling trucks manufactured by the Baker-Raulang Company, Cleveland. The firm has sales and service facilities at 104 West Main Street, Louisville 2, and will handle Baker's complete line of gas and electric fork, platform, and crane trucks, the Shovel-oader front-end loader, and the Traveloader side-loading fork lift truck. A full stock of parts will be maintained, plus complete facilities for demonstration and servicing of Baker trucks.

Columbia Machine

In line with the company's sales and service expansion, Richard C. Spady and Robert W. Carlile have been appointed sales representatives for Columbia Machine Company in California, Arizona, Nevada, Colo-

"BIG TIME" ADVANTAGES

IN THIS
COMPACT AND
RELATIVELY
INEXPENSIVE
KENT
SUPER
BLOCKMAKER



Here is an entirely new semi-automatic machine ideally suited for SMALL and MEDIUM block plants.

A SPECIAL air cylinder-powered press head makes possible a faster cycle and assures blocks of uniform height and equal density regardless of the material used.

PRICED BELOW any machine of comparable performance, the SUPER BLOCKMAKER consistently produces blocks at a rate of 5 per minute from any aggregate and has a peak output of 6 blocks per minute.

Equal delivery of aggregate to the mold box is effected by agitation and mold box vibration assures uniform block density.

A simple push of a button starts cycle during which various operations are automatically handled in sequence.

You'll be surprisingly pleased at the comparative low cost of this machine. Write TODAY for illustrated circular.

The **KENT MACHINE COMPANY**

CUYAHOGA FALLS, OHIO

CONCRETE PRODUCTS MACHINERY SINCE 1925



R. C. Spady

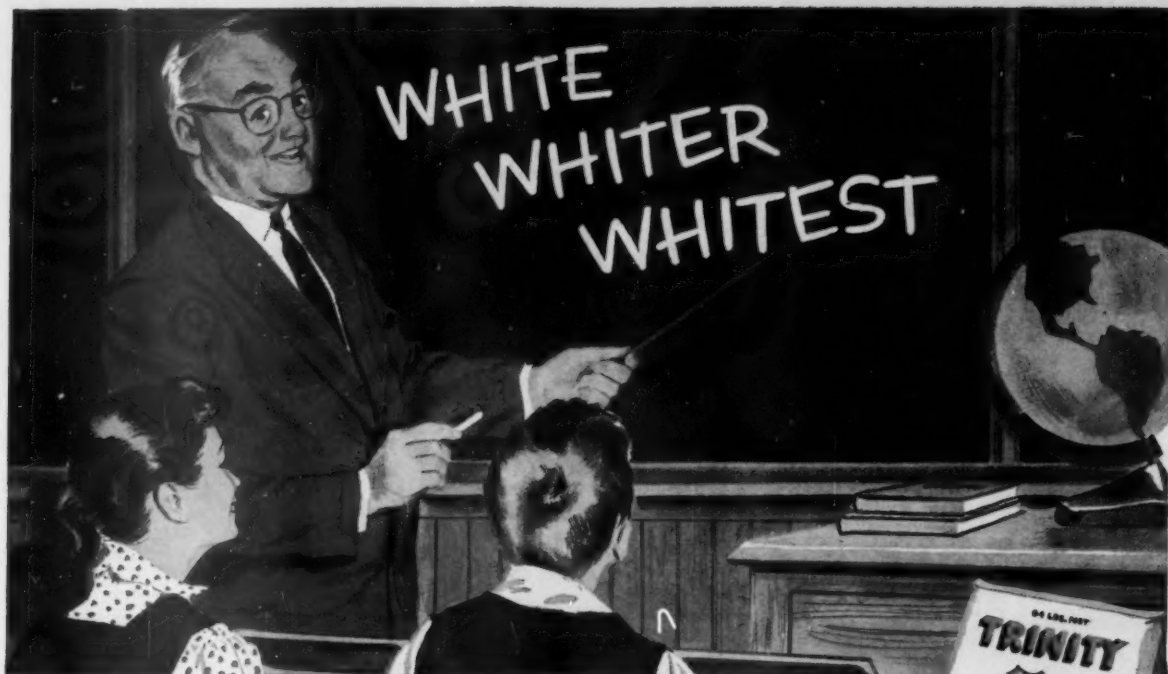


R. W. Carlile

rado, New Mexico and Utah, it was announced this week by Fred Neth, president of the firm.

In order to give 24 hour parts service to all points in the territory, new offices and warehouse facilities have been established at 3510 West Burbank Blvd., Burbank, California. In charge of the new service department is Paul Hugill.

Both men are long-time employees of Columbia Machine Company, Mr. Carlile formerly representing the company in British Columbia, Alberta and Saskatchewan while Mr. Spady represented the firm in the southwestern states territory. Each has been factory trained at Columbia's home plant at Vancouver, Washington.



TRINITY WHITE

Whitest in the bag... whitest in the mix... whitest in the completed job. Use Trinity White Cement for architectural concrete units; terrazzo; stucco; light reflection—wherever a whiter white or purer colors are desired.

A Product of GENERAL PORTLAND CEMENT CO. • Chicago • Dallas • Chattanooga • Tampa • Los Angeles

As white as snow
... plain or waterproofed



BAUGHMAN MODEL 175 BELT & BUCKET CONVEYORS

are on the Job from Coast to Coast...

Saving

TIME!
MONEY!
LABOR!



A ready-mix plant on a R.R. job in N. Dakota.



Plant aggregation installation in Michigan.



A road widening project in Iowa.

Concrete pipe manufacturing in Missouri.



Write
For
Catalog



BAUGHMAN MANUFACTURING CO., Inc.

102 ARCH STREET

JERSEYVILLE, ILLINOIS

MANUFACTURERS' NOTES

The Thomas Company

A new coating product that solves the problem of sticking materials has been introduced by The Thomas Company, manufacturers and distributors of specialty products to the highway, construction and industrial fields. Marketed under the registered trade-mark Powerfilm, the materials release coating resists sticking of concrete, clay, moist dirt, coal, lime,

snow and other materials to equipment.

Powerfilm MRC is effective on concrete forms including paving, culvert and sewer pipe forms; inside dirt haulers; conveyor belting; transit-mixer trucks; snow plows and other snow handling equipment; truck beds; interiors of front-end loading equipment such as buckets; food processing equipment where its non-toxic properties reduce con-

tamination; wheel barrows, and many other uses. For additional information write The Thomas Company, 1645 Hennepin Avenue, Minneapolis 3, Minnesota.

Frank G. Hough



F. G. Hough

At a special meeting of the board of directors of The Frank G. Hough Company, Libertyville, Illinois, a subsidiary of International Harvester Company, Frank G. Hough, founder and president of the company, was elected to the newly created office of chairman of the board of directors.

Lith-I-Bar Company

Lith-I-Bar Company has announced the appointment of E. P. Evans as sales representative in the Chicago area. Mr. Evans has been in sales work for twenty years and is thoroughly familiar with concrete products machinery.

Four Wheel Drive



W. H. Peters

Wesley H. Peters has been named manager of the expanding Ground Support Equipment Division of the Four Wheel Drive Auto Company, it was announced by G. F. Decoursin, vice president-sales. He will be in charge of the continued development and application of such FWD innovations as the Teracruzer, the eight-wheel-drive vehicle which can traverse virtually all types of terrain on huge watermelon-shaped tire bags.

Mr. Peters joins FWD, manufacturer of custom-engineered all-wheel-drive trucks, after 15½ years in Goodyear Aircraft Corporation's engineering and aerophysics departments. He was project and staff engineer on development and coordination of guided missile and ground support equipment projects during the past five years.

THERE'S NO SPILLAGE WITH A WILLARD and no trouble placing concrete in small forms because Willard's "Dual Lever Control" starts and stops the pour instantly—can place a cupful or a full load. Two simple levers—a combination clutch and gear shift lever and a combination throttle and drum brake lever—are centralized at the left rear of the truck. Duplicate throttle and drum brake lever is located at left front near pedestal tank.

For extra payloads and for easy positive control, see Willard 5-6 C.Y. Truck Mixers. Note their low center of gravity . . . short wheelbase mounting . . . and many exclusive features. Drum drive is by Chrysler-6 engine with fluid drive.

See your Willard dealer or write for bulletin.

Manufactured in Los Angeles, California and Galion, Ohio

WILLARD CONCRETE MACHINERY SALES COMPANY

11700 WRIGHT ROAD, LYNNWOOD (LOS ANGELES COUNTY), CALIFORNIA

Member: T.M.M.B.



WILLARD TRUCK MIXERS

NOW YOU GET THE BEST FOR FAR LESS!

Forrer's XL-100

Powdered

Will Not Gum Up!
Guaranteed
"FREE-FLOWING"

Concrete Plasticizer!

Costs only $\frac{1}{4}$ c per bag of cement

Cut your plasticizer costs to the bone with XL-100 dry powder. It weighs less — goes farther and does a better job. New process brings you a plasticizer that acts faster, takes $\frac{1}{3}$ the amount (by weight) and does a superior job. Concrete blocks are shades whiter, denser and outside surfaces have smoother texture. Increase contractor, builder satisfaction — deliver a better block for less than $\frac{1}{4}$ c per bag of cement. Investigate Forrer's XL-100 today!



COMPARE!

SEE THE AMAZING DIFFERENCE!

Forrer's XL-100 is a dry hydrated powder with wetting and dispensing agents. It's easy to use and economical too — costs but $\frac{1}{4}$ c per bag. Free sample on request



Division of SPRAY-O-BOND CO., 2225 N. Humboldt Ave., Milwaukee 12, Wisc.

Concrete Filler Block for *Fire-Safe* FLOORS and ROOFS

Why make only the walls of a new building fire-safe and permanent?

Why not also apply these practical advantages to the floors and roofs? Concrete Filler Block, produced on a Besser Vibrapac, make it possible for the ENTIRE structure to be fire-safe and permanent... at LOW COST.



ALL made on a BESSER VIBRAPAC

Concrete Filler Block are made on a Besser Vibrapac... the same dependable machine that produces high quality concrete load bearing block for walls. And the same Plain Pallets are used. All types of filler block can be made in various sizes to coordinate with other modular materials and for all load conditions. Block plant operators can materially add to their profits by supplying their customers with BOTH wall and floor units. For further facts, contact your nearby Besser representative, or write:



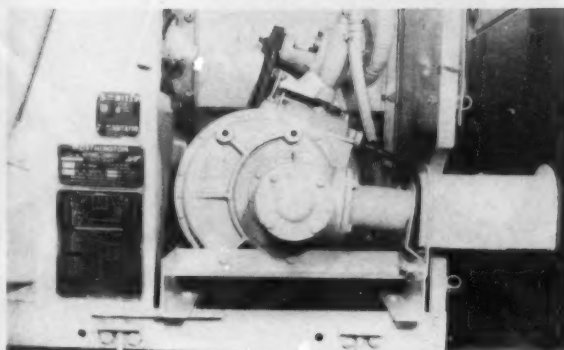
Vibrapacs are versatile. They make ALL types and sizes of block on ONE set of Plain Pallets. Fully automatic. Off-bearer removes finished block with power hoist. No manual lifting.

BESSER COMPANY • Complete Equipment for Concrete Block Plants • Alpena, Michigan, U. S. A.

EQUIPMENT & MATERIALS

Front Power Take-Off

NOW available is a two-speed, right angle gear drive for front power take-off and power-tower mid-transmission. The new design incorporates a pair of multiple disc clutches, running in oil, for two-speed operation which enables drivers to shift from drum mixing speed to agitating speed without shifting gears. Whether stationary or declutched, the design permits drum motion at all times. Rotation is stopped by shifting the cab control to neutral or by utilizing the remote control on the transmission. *Worthington Corporation, Harrison, New Jersey.*

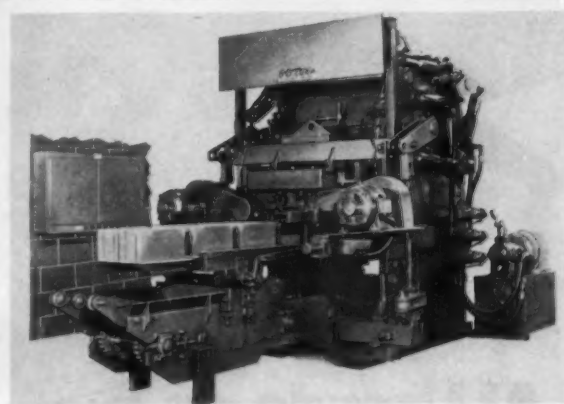


Automatic Intercom

PERMITTING private and selective communication without the bother of manual operation, this intercom is controlled automatically by the voice. Even when conversing with touch-control units, no buttons or levers are needed. Automatic traffic control, another feature of these new models, determines and controls the traffic on the line with visual signals: green for a clear line; red when a line is busy and amber when a line is being called. All the good features of the older models have been retained in this one, which can be intermixed with standard units. *Talk-A-Phone, 1512 South Pulaski Road, Chicago, Illinois.*

New Block Machine

HIGH production and low cost are featured in this plain-pallet hydraulic two-block machine. It will produce 600 quality block per hour, with minimum maintenance and upkeep. Built for long, rugged duty at high speed, it has 1-inch side plates, oversized motors, pumps, shafts and single acting cylinders. Such features as quick-change feed, time and changeable strip speed to handle troublesome mixes, automatic low voltage height control and a smooth acting block receiver are some of the quality safeguards that are standard with this machine. *Gocorp, 405 Grace Street, Adrian, Michigan.*



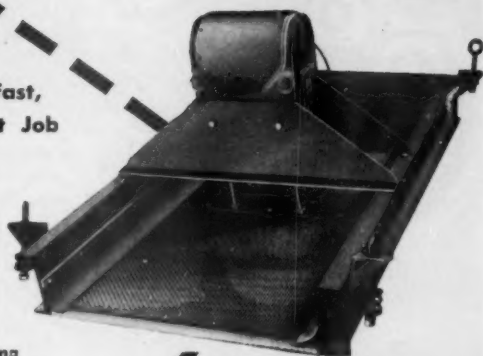
Semi Dump Trailer

THIS frameless, front mount hoist semi dump trailer hauls a legal pay-load of 20 tons in most states, and offers new operational features of versatility and durability. Highly maneuverable, the trailer uses lightweight rugged steel, which, with a new "safety first" hydraulic system, turns dead weight into payload. Maximum stability is gained through tricycle suspension and by the immobilization of the trailer springs during the final critical period of the dumping cycle. *Cook Brothers Equipment Company, 3334 San Fernando Road, Los Angeles 65, California.*

SYNTRON Pulsating Magnet

VIBRATING SCREENS

Do a fast,
Efficient Job
of



dewatering
desludging
separating
dedusting
desilting
scalping
sizing
etc.

For every screening problem

Syntron Vibrating Screens are designed for fast, efficient, low cost scalping, sizing, coarse or fine screening, dewatering, or dedusting, desludging etc. The unique action of the electromagnetic drive vibrates the entire screen area, helps maintain high production rates.

Available in a wide range of screen sizes.

other SYNTRON Equipment of proven dependable Quality

ELECTRIC SAWS



Belt driven to deliver full cutting power to blade — no bucking or jerking. For cutting of wood, concrete block, plaster board, etc. 8½ and 10" blade sizes.

ELECTRIC HAMMER

Electromagnetic, free piston that strikes 3600 powerful blows per minute will do the work of many men. — Fast, easy cutting, chipping or drilling in concrete. Automatic rotation of drill bit.



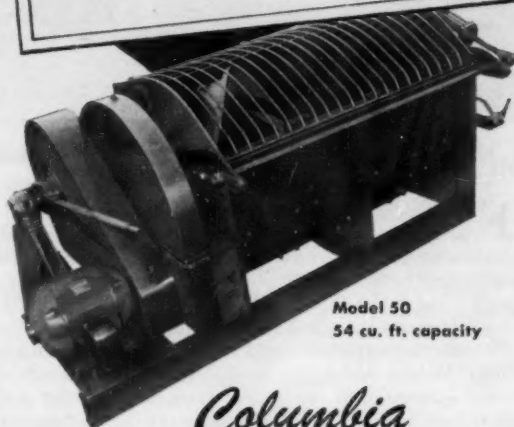
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324 Lexington Avenue Homer City, Penna.

MEMO TO

Block Plants
Because of our greatly expanded facilities in both Vancouver, Wash., and Mattoon, Ill., Columbia can now offer delivery on most Batch Mixers in a matter of only a few days following the receipt of your order.



Model 50
54 cu. ft. capacity

Columbia BATCH MIXERS

Columbia Mixers are manufactured in sizes and capacities to meet industry demand. The following five models are now available:

MODEL 12 (12½ cu. ft.) MODEL 25 (27 cu. ft.)
MODEL 40 (45 cu. ft.) MODEL 50 (54 cu. ft.)

MODEL 75 (81 cu. ft.)

Handles 10,000 pounds
of mix at one charge.

Columbia FEATURES

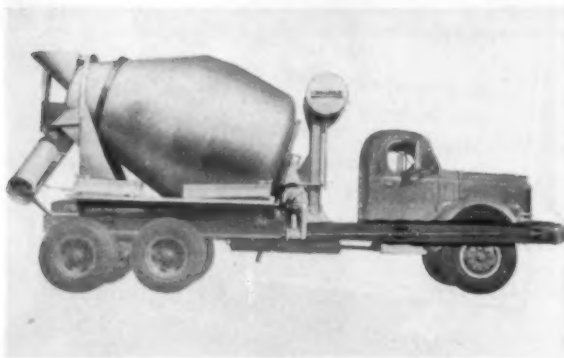
Heavy duty SKF dust-proof bearings • Toggle-operated self-discharging gates • Spiral blades made of long-bearing Nihard steel • Rugged all-welded construction • Low charging side allows use of batchers and measuring devices • Heavy-duty electric motors insure efficient operation with full loads • Heavy cut gears give positive drive and long wear • Safety grids made of heavy bars • All models can be equipped with hydraulically-operated doors at slight extra cost.

For complete information, write, wire or phone



District Offices in: Wisconsin, Illinois, South Carolina, Mississippi, Florida, New Jersey, Virginia, California, Massachusetts, Texas, Montreal, Toronto, Vancouver, British Columbia.

Columbia MACHINE
Home Office: 107 S. GRAND, VANCOUVER, WASHINGTON
Factory Branch and Warehouse at Mattoon, Illinois.

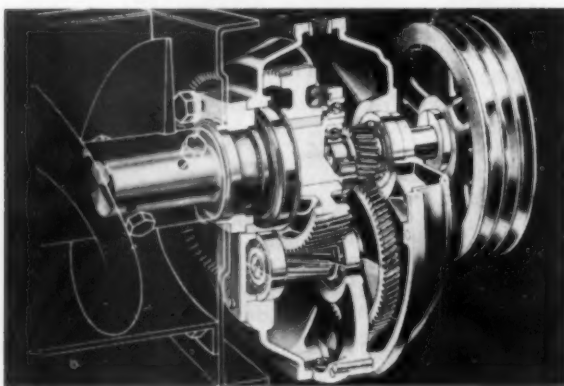
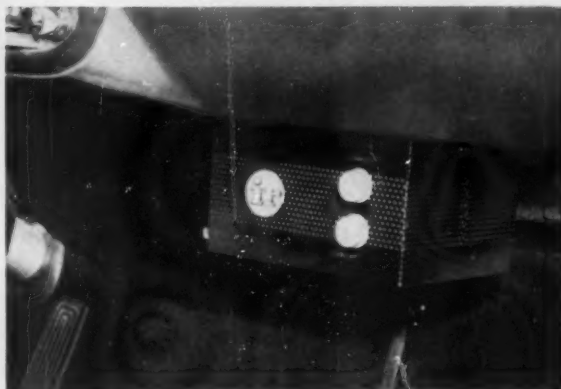


Truck Mixer

PROVED and improved, this new engine-take-off drive is simple and economical to install on any conventional truck. Power to operate the mixer is taken from the front of the truck engine and transmitted to the mixer by simple, straight, automotive-type drive lines which are easily accessible for lubrication and maintenance. Said to be more economical to operate than separate engine mixers, the engine-take-off drive is especially engineered for 5-, 5½-, 6-, and 6½-cubic yard mixers. It makes possible the use of shorter wheel-base trucks. *Cook Brothers Equipment Company, 3334 San Fernando Road, Los Angeles 65, California.*

VHF Receiver

FOR single channel monitoring, this surprisingly low-priced communications receiver is invaluable for those who employ 2-way VHF systems. The auto set has miniature tubes, transistors, and a dual conversion superheterodyne circuit which uses a crystal to eliminate drift. Because the set is designed for single-channel use, the only adjustments are for volume and squelch settings. Mobile models are available for 6- or 12-volt electrical systems and use power transistors in the output to reduce battery drain. The unit can be dashmounted, and uses an ordinary car radio antenna. *Industrial Radio Corporation, 428 North Parkside Avenue, Chicago 44, Illinois.*



Speed Reduction Unit

DESIGNED for screw conveyor applications, this speed-reduction unit has a flange adaptor that permits bolting directly to the trough end of a screw conveyor. The output shaft fits into the end of the pipe of a standard screw, and the input shaft can be driven from any motor by a short center V-belt drive. Special features are a direct drive shaft for the screw conveyor, integral drive-shaft bearings, a dust seal that eliminates the need for any auxiliary seal, high capacity for thrust absorption, and outstanding compactness. *The American Pulley Company, 4200 Wissahickon Avenue, Philadelphia 29, Pennsylvania.*

Traveling Lift Truck

REDUCING the time required to move block from yard to construction site, this versatile lift truck loads block onto the delivery truck, rides behind the truck to the job site, and removes the block from the truck. Large wheels, semi-rigid framing, a low center of gravity, and high ground clearance contribute to the truck's usefulness on construction jobs. It is possible to carry block over curbs or rough ground with no tipping. The truck may be hauled at regular highway speeds. *C. Rinkin & H. Olson, Rinson Fork Lift Trucks, 725 East Huntington Drive, Monrovia, California.*





We're Reading Your Mail

Each month thousands of persons who read Portland Cement Association advertisements in national magazines write for more information about concrete masonry houses and farm buildings. These letters from prospects for concrete masonry are of interest to you.

Many of these prospects live in your market area. Do they know your plant is headquarters for concrete masonry information?

Make sure they do. Tell them so in your local advertising. And take advantage of the "preselling" the PCA ads have done. Mention the PCA ads by magazine and page number in your advertising. Offer help and information to those who want concrete masonry houses and farm buildings like those in the PCA ads.

When prospects call show them photos of attractive concrete masonry houses or farm buildings, or take them to see them. Supply names of architects, builders and lending agencies experienced in designing, building and financing concrete masonry construction.

You'll discover that it really pays to "tie in" with PCA ads and to offer helpful service.

PORTLAND CEMENT ASSOCIATION

33 West Grand Avenue, Chicago 10, Illinois

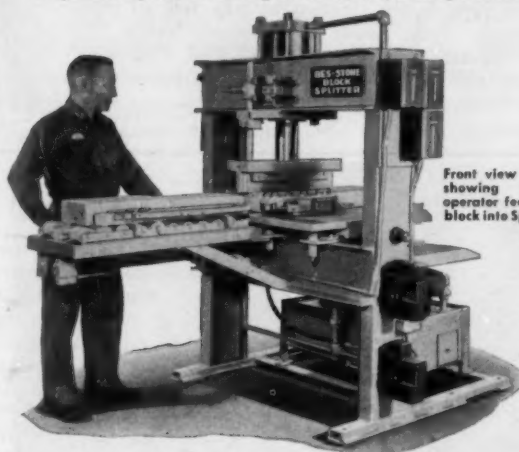
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Hydraulic Shovel Attachment

NO ALTERATIONS are needed to attach this hydraulic shovel to a lift truck. Connecting to the fork bars in the same manner as the forks, it can be installed in five minutes. The shovel is operated by a double acting hydraulic cylinder, taking power from the hydraulic system of the lift truck either from a third valve or from a selector valve in the tilt cylinder line. Full control of manipulation permits dumping at any desired speed. *Allen Industrial Products, Inc., Battle Creek, Michigan.*

Heavy High Lift

FEATURING heavier counterweights, a heat-treated tilting mast and a 42 horsepower engine, this high lift truck can move 5000 pounds. The new power and increased durability eases the effort in handling tough loads, resulting in reduced operating and maintenance costs. Extra wide tires provide the traction to take full advantage of the power, and power steering is standard equipment. *Truck-Man Division, Knickerbocker Company, 570 Liberty Street, Jackson, Michigan.*



One-Lever Control

SIMPLIFYING mixer operation, this single lever, located at the rear of the mixer drum, controls the entire charging, mixing, and discharging operation for the company truck mixers. With it, the driver may start, stop, reverse, and regulate the speed of the mixer drum. A cab control now enables the driver to move the truck and discharge concrete at the same time. *Cook Brothers Equipment Company, 3334 San Fernando Road, Los Angeles 65, California.*

Portable Mixer

JUST out is a portable concrete mixer, for do-it-yourself work or small jobs for commercial builders. The mixer, which handles as easily as a wheelbarrow, is powered by a quarter-horsepower electric motor through a belt drive. It can be wheeled away from the belt drive frame and can be used to pour concrete through a spout at the edge of the bucket. The bucket and spout are supported by a tubular frame with one wheel. Skid bars activate the motor switch. *Graybill Industries, Inc., Spokane, Washington.*



BOOK REVIEWS

CONCRETE FARM STRUCTURES. By A. M. Pennington, *Concrete Publications, Limited, 14 Dartmouth Street, Westminster, S.W. 1, London, England, \$2.80.*

This book gives plans, sections, working drawings, and all the information necessary for the erection in concrete of various farm structures. The last chapter deals with the planning of farms, and full information is given on the manufacture of the precast concrete units used in the construction.

INDUSTRIAL VISION. By Dr. Henry W. Hofstetter. *Chilton Publications, Chestnut and 56th Streets, Philadelphia 39, Pennsylvania, 188 pages, \$10.00.*

This book gives a complete statistical analysis of vision and industrial efficiency by considering all sides of the controversial subject. Employee performance and competence is shown in the light of supervisors' ratings, production ratings, quality ratings, accident frequency records, and absenteeism. It is separated into divisions which cover industrial eye hazards and protection, visual testing in industry, vision and industrial efficiency, industrial compensation for loss of vision, visual test for driving ability, and the relation of vision and visual testing to driving ability.

CEMENT, CONCRETE, CERAMICS, THERMAL INSULATION, ROAD MATERIALS, WATER-PROOFING, AND SOILS. *American Society For Testing Materials, 1916 Race Street, Philadelphia 3, Pennsylvania, 2062 pages, \$13.50.*

Non-metallic materials widely used in construction are covered in this book containing 477 standards; 231 standards are new or have been revised since 1952.

REACTOR SHIELDING DESIGN MANUAL. Edited by Theodore Rockwell III, *D. Van Nostrand Company, Incorporated, 120 Alexander Street, Princeton, New Jersey, 480 pages, \$6.00.*

Based on work of the Naval Reactors Branch of the Atomic Energy Commission in the design, construction and testing of shielding for reactor plants, this volume has wide application to many other projects.

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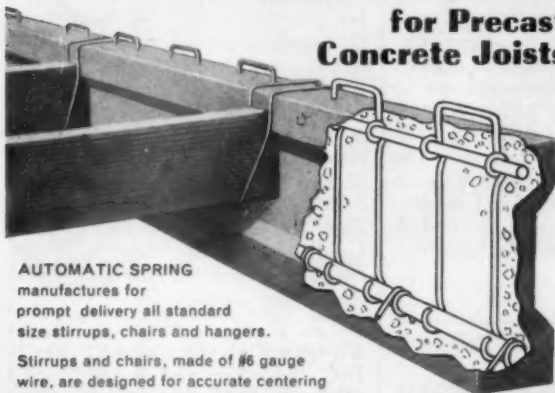
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palm

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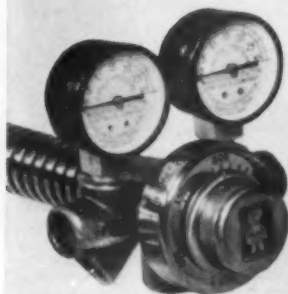
Tilt-Type Mixer

WITH a three and one half cubic foot capacity, this small mixer features easy handling and low maintenance. Frame, mixing drum and yoke are of box-section steel, all welded for maximum strength and minimum weight. Anti-friction bearing mountings throughout provide trouble-free mixing operation, promote portability both for towing and moving around a job site. The mixer is powered by either 2.2 horsepower gasoline engine or an electric motor. *Koehring Company, Milwaukee, Wisconsin.*



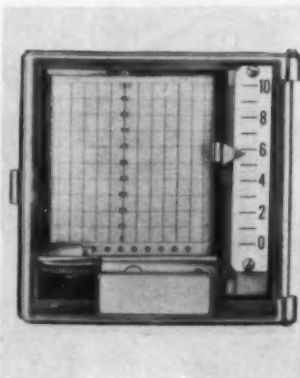
High-Temperature Thermostat

A PILOT type thermostatic controller for higher temperature applications, this instrument is recommended where compressed air is used as the pilot supply. While it is available in standard ranges of 250 to 450 degrees F., and 350 to 500 degrees, the company can supply any 200-degree range from 50 to 600 degrees. The 19-inch tube is of stainless steel to withstand corrosion as well as heat and erosion. *Fulton Sylphon Division, Robertshaw-Fulton Controls Company, Box 400, Knoxville, Tennessee.*



Electronic Potentiometer

SELF-BALANCING, this electronic potentiometer gives a continuous record on a three-inch strip chart. The recorder, which uses standard components, is housed in a case only 5 inches square, to blend with other modern miniature instruments. Accuracy and sensitivity are unchanged from the standard 12-inch instrument. The small model comes in indicating types too. Both are built for full plug-in service, and can be interchanged with each other in a matter of seconds. *The Bristol Company, Waterbury, Connecticut.*



BOOK REVIEWS

(Continued)

Presenting a wealth of data, it is more than a handbook, and the design methods described include detailed illustrations of the use of general formulas in actual shield design, as well as brief derivations.

PROBLEMS OF THE INDEPENDENT BUSINESSMAN. By Austin Gimshaw. McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, New York, 403 pages, \$6.50.

This book presents 25 comprehensive cases, plus some supporting statistical material, which describes the major policy problems actually faced by owner-managers of small businesses. The book encourages the reader to think his way through to policy recommendations consistent with the facts presented; and aids him, if necessary, in determining his occupational preferences. The cases range from enterprises not yet launched to businesses which have been in existence for nearly fifty years.

SIMPLIFIED MASONRY PLANNING AND BUILDING. By J. Ralph Dalzell. McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, New York, 376 pages, \$5.00.

Practical, step-by-step guidance for planning and building all common types of concrete, concrete block, stucco, and similar masonry structures is given in this book, with 182 illustrations and simple instructions to make the material easily understood. The planning and laying out of masonry jobs, as well as actual building methods, are fully covered. Each procedure has been checked by building code inspectors and experienced masons to see that it conforms to accepted practice.

SYMPOSIUM ON IMPACT TESTING. American Society for Testing Materials, 1916 Race Street, Philadelphia, Pennsylvania, 170 pages, \$3.50.

This symposium tries to fulfill the larger needs of this area of testing by including papers discussing impact and shock tests for parts, components and complete structures. Among the papers included in this volume is one on Properties of Concrete at High Rates of Loading. The book contains many graphs, charts and photographs, and several useful bibliographies.

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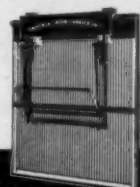
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Dockboard Lock

SIMPLE to use, these safety units clamp firmly onto the curbs of dockboards, locking them in a slip-proof position between dock and carrier. The locks can be positioned and repositioned to meet varying dock-to-carrier span requirements without need for tools. An easy pull on the lever arm opens the lock, and a firm push against the arm locks the jaws. Normally, the locks are used in pairs. *Magnesium Company of America, Materials Handling Division, East Chicago 19, Indiana.*



NEW LITERATURE

FLY ASH—A booklet containing the technological reasons why fly ash imparts desirable properties to concrete is now available. It includes test results, mix data, and examples in text and pictures. *Chicago Fly Ash Company, 228 North La Salle Street Chicago 1, Illinois.*

BLOCK MAKER—Introducing the Kentthree block machine, which features low cost of operation, this bulletin lists and illustrates the important characteristics of the equipment. *Kent Machine Company, Portage Trail, Cuyahoga Falls, Ohio.*

AMERICAN STANDARD — Sixteen hundred American Standards are indexed in the new List of American Standards just published. About 275 of these are in the field of civil engineering and construction. They include codes for building and plumbing, test methods and specifications for building materials of all types, fire tests and safety precautions in construction, modular coordination and many other related items. *American Standards Association, 70 East 45 Street, New York 17, New York.*

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One used heavy-duty, custom built two-block machine, in excellent condition, including off-bearing hoist; 42 cu. ft. mixer and skip hoist; 4, 6, 8, 10, 12" & combination chimney block attachments; 1500 18 x 22 1/2" pallets and 63 racks. Priced for quick sale. Write or call:

D. Xupe
Sales Manager
Sergen Machine & Tool Co., Inc.
Nutley, New Jersey Nutley 2-7300

FOR SALE

- 1—Columbia No. 12 block machine with 4", 6", 8", 10", 12", and chimney block attachments.
- 1080—Plain steel pallets
- 30—Steel block racks
- 1—Model M-11H Columbia mixer
- 1—Quincy air compressor Model 325 \$17,500.00 complete. This equipment is in perfect mechanical condition having been used only 10 months.

WEST ALLIS CONCRETE PRODUCTS CO.
8704 W. Schlinger Ave.
Milwaukee 14, Wisconsin

SWAP — SELL — BUY

BLOCK MACHINES

- Stearns #7 & 9 Joltcretes \$500.00 each
(Joltcrete owners at this price buy one for spare parts.)
- Mold Boxes # 7 & 9 150.00 each
- 1—12 cu. ft. Kent Mixer with motor \$450.00
- 1—18 ft. Stearns Skip Hoist 450.00
- 1—George 28 cu. ft. Concrete Mixer 750.00
- 1—Continuous Mixer 150.00
- 2—Air Offbearers Stearns #7 & 9 .. 250.00 each
- 2—Hand Lift Trucks 175.00 each
- 100—Racks for cored steel pallets .. 10.00 each
- 100,000 pressed steel pallets in stock (Send tracing or sample for quotation).

WRITE • WIRE • PHONE
Mr. McCaughey

Send in list of equipment you need. If we don't have it in stock, we usually know where we can find it at a bargain.

GENERAL ENGINES CO., INC.
Route 130 Therefore, N. J.
Phone: Tilden 5-5400

INVENTORS AND MACHINE DESIGNERS

National manufacturer is desirous of obtaining manufacturing and sales rights on any equipment or improvements used in concrete products plants on a royalty or outright purchase basis. Patents not essential. Protection guaranteed.

Address: Box E-4, care CONCRETE
400 W. Madison St., Chicago 6, Ill.

FOR SALE

- 1—L-2 LITH-I-BLOCK machine with automatic pallet return
- 1—10 H.P. Air Compressor
- 1—30 Cu. Ft. Multiplex mixer
- 1—30 Cu. Ft. Lith-I-Skip inclined type
- 54—72-block steel racks
- 1440—New 1/4" x 18 x 22 steel pallets
- 2000—Used 5/16 x 18 x 22 steel pallets

Extra mold boxes and attachment to make all sizes blocks. Also brick. All in good condition, reasonably priced. May be inspected at our St. Louis plant.

ROCK HILL QUARRIES COMPANY

1233 N. Rock Hill Rd., St. Louis 17, Mo.

A REAL BARGAIN

As we have purchased a Stearns 50, we have the following equipment for sale. All equipment is in perfect condition, and only three years old. Can be seen in operation anytime.

- 1—Stearns Zipper (semi-automatic)
- 1—Stearns 12 cu. ft. Mixer—V Belt Dr.
- 1—12 cu. ft. Skip Hoist
- 1—4 inch attachment

All parts for 8" Fractionals

- 1700—4" Pallets
- 1800—8" Pallets
- 1—Turntable
- 42—(48) Steel Block Racks
- 1—Pallet Oiler
- 1—Truckman Gas Rack Truck
- 1—Barrett Lift Truck
- 2—Steel Pallet Racks

AUBURN CONCRETE PRODUCTS CO.

5. Indiana Ave. Auburn, Indiana
Phone 1464

USED BLOCK MACHINES

Stearns Zipper—Jefferson, Wisconsin.
Kent Blockmaker—Saginaw, Michigan.
Two-block Van-U-Matic molds, offbearer and steel plain pallets. \$1,500.00—Aberdeen, South Dakota.
Two-block Praschak with 4"-8"-10"-12" molds and pallets. \$1200.00.
Stearns Clipper—Conoquenessing, Pennsylvania.
Three-block plain pallet Flamm machine, reasonable—Chatham, Ont., Canada.
Besser K-12 with mixer, 3000 steel plain pallets and steel racks \$2500.00 complete — Cannon Falls, Minnesota.
Two-block plain pallet Multico complete with molds, offbearer, pallets and racks, \$500.00 down—Manikato, Minnesota.
Joltcrete No. 9 still operating—Rockford, Ill., Durham, Ont., Canada.
Joltcrete No. 7—Quincy, Ill., Two Harbors, Minn.
Hydro-Korpac—La Porte, Indiana.
Flemings—Lith-I-Blocks—Columbiana.
I also have on hand quite a supply of cored pallets, modular and full size, a few used mixers, bolters, conveyors and bucket elevators. Also I list a few plants that want partners with a little cash and lots of experience.

MID-WESTERN CONCRETE EQUIPMENT CO. Mattoon, Illinois

FOR SALE
BERGEN TRI-MATIC
BLOCK MACHINE

Front Pallet Feeder, Zeromatic Control, and Offbearing Hoist, used less than 11 months.

Address Box E-22, care CONCRETE, 400 W. Madison St., Chicago 6, Ill.

E. L. CONWELL & CO.

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CONCRETE
CURE

A thoroughly tested and proven membrane curing agent. Conforms to all Federal, State, County and City specifications. White, Clear or Black. Price lists and data on request.

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I have been commissioned to purchase complete ownership or controlling interest of plant manufacturing 1500 barrels or more per day of cement. Any location.

P. C. CUNNINGHAM

Realtor

Box 128

Erie, Penna.

FOR SALE

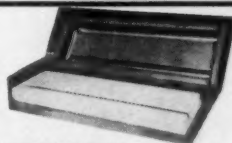
The following to be replaced by higher production Gocorp equipment:

- 1—L-3 Lith-I-Block machine with new Rotaposed Agitator, Micro-Justable Vibration, Electric Feed Timer, Front Pallet Feed and 15 h.p. Gardner-Denver Compressor (free standing tank), with—4, 6, 8, 12" and chimney attachments plus parts for making fitting units
- 1—4" high attachment and parts for fitting units
- 1300—18x18" steel pallets
- 36—Block Racks (Capacity 60 per rack) Two years old. Good condition. Attractively priced.

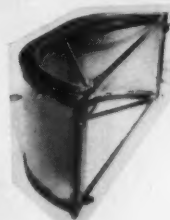
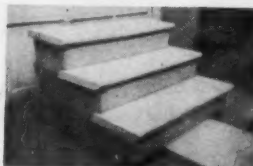
THE GENE OLSEN CORPORATION

Adrian, Michigan

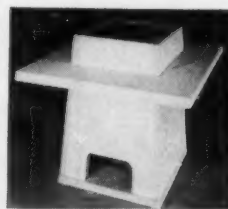
"MAIL ORDER" METAL MOLDS



SPLASHBLOCK MOLDS

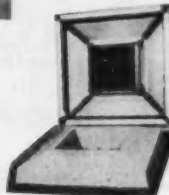
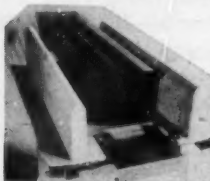


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TAKE YOUR CHOICE. BUT DON'T MISS THE BOAT! GET STARTED TODAY!

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BOX 534 STATION "G" COLUMBUS, OHIO

THE EDITOR'S PAGE

WILLIAM M. AVERY

Prophets Without Honor

THERE IS EVIDENT on almost all levels of business nowadays a pathetic willingness to entrust positions of great responsibility to total strangers in preference to making promotions from within the ranks. We suppose this is just part of that strange quirk of human nature that helped hatch out the bromide "A prophet is never without honor save in his own country."

We have a hunch that prophets, if the breed still exists at all, are probably conditioned to the idea of being discounted at home. In the business arena, however, we think the almost universal tendency to overrate strangers at the expense of those we know not only leads to many serious injustices, but often tends to impede the very purposes for which business enterprises exist. Today's businessman too often fails to recognize that the best experts on earth, and the finest specialists obtainable, are the very employees who have helped operate his particular show for a period of years.

It's understandable, of course, that the familiar is always lacking in glamour. We dismiss almost automatically the notion that anybody we know well could possibly be an expert in his field. He might, indeed, be the very best in the business, but we know his shortcomings, and our whole impulse is to say: "Sure, he's a nice guy, but whatever makes you think he is an expert?"

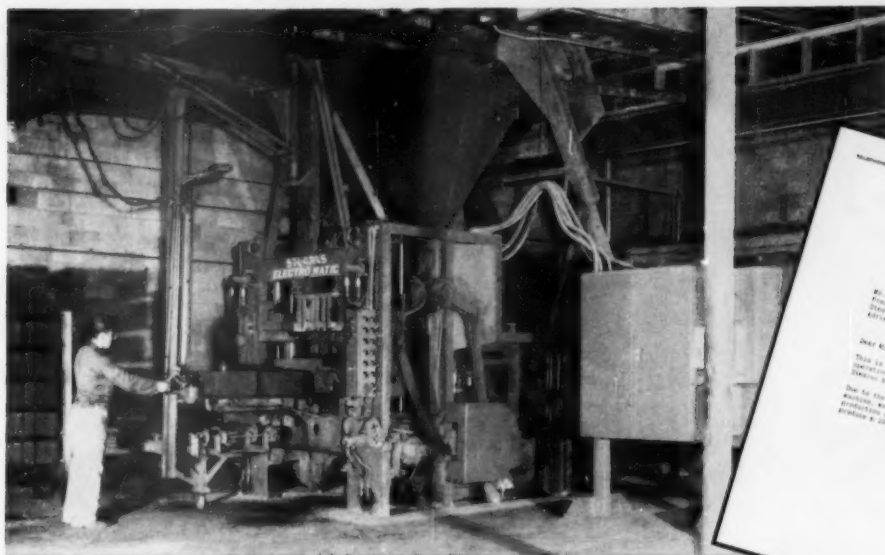
We think the reluctance of business in general, and especially small business, to find leadership among its own employees has a number of serious consequences. The glamorous superman brought from afar to handle a critical job too often proves to be just a mine-run performer, far more interested in what the job can do for him than in what he can do for the job. But this isn't too serious, since there's always another eager-beaver waiting to move in.

Where this policy really backfires is in the devastating blow it strikes at the morale of the entire organization in which it is practiced. It seems almost to serve formal notice on employees that loyalty, experience, intelligence, hard work and tenure, are not enough to offset management's instinctive distrust of the products of its own system. Many a smooth functioning team starts to disintegrate when the members discover that their very presence in the system disqualifies them from ever running it.

Business management that fails to use the powerful incentive of promotion to encourage better-than-average performance by employees is ignoring one of the best weapons available in the battle against rising costs. Business management that instinctively distrusts knowledge and experience gained within its own orbit is in a very real sense passing judgment on its own inability to manage.

CREGO BLOCK CO. OF ALBUQUERQUE, N. M. IS PRODUCING 1080 BLOCKS PER HOUR

WITH THEIR NEW *Stearns* **ELECTRO-MATIC**



Stearns Electromatic,
Skip-loader, and
Gearmotor Drive Mixer
installation at Crego
Block Co.



Proof Positive THAT **EXTRA BLOCKS MEAN EXTRA PROFITS FOR YOU**

"Due to the *extra* compaction we get on this machine," says Mr. Crego, "we can maintain a 6 cycle per minute production." In addition, Mr. Crego has stated that the quality and strength of the blocks produced on the Electromatic are far superior to blocks made on his former machine.

Here *again* is proof positive . . . that the Stearns Electromatic is *exclusively* designed and built for high speed operation . . . faster cycling *without* machine abuse . . . higher productivity *without* sacrifice of quality . . . lower unit costs and increased profits for you. Write today for full particulars, and the installation nearest to you!



Mr. "Ben" B. Crego,
owner of Crego Block Co.

We'll see you there!
10th Concrete Industries Exposition and
37th N. C. M. A. Convention
St. Louis, Mo. Feb. 25-28

ASK ANY OWNER!

STEARNS
MANUFACTURING COMPANY • INC.

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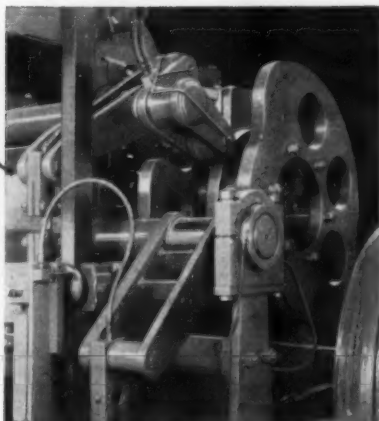
Complete Concrete Products Plant Equipment

4 Big Reasons *Why* Block Makers Prefer VIBRAPACS

1

CAM OPERATED

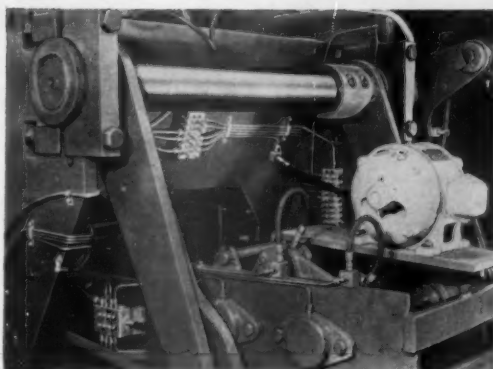
The famous Besser cam and roller principle of power application assures dependable operation. The slow revolving cam, with a roller riding on its surface, delivers power with pin point precision and with steady, uninterrupted regularity.



2

AUTOMATIC LUBRICATION

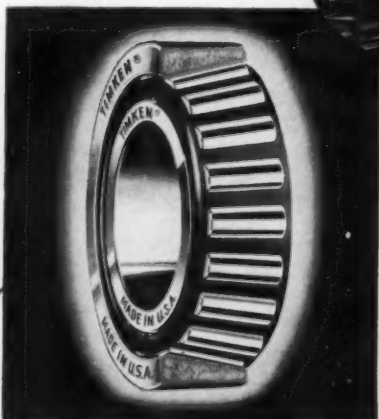
The Vibrapac now lubricates itself at regular intervals . . . while it is running. No more downtime for lubrication. No premature wear of insufficiently lubricated parts. And no over lubrication.



3

ANTI-FRICTION BEARINGS

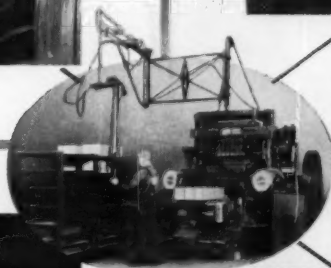
The Vibrapac is completely equipped with anti-friction bearings. Pallet receiver shaft assembly, for example, has a 7½" diameter Timken Roller Bearing. Assures smooth, trouble-free operation and a lifetime of service.



4

2000 LBS. PRESSURE

VIBRATION is under pressure of 2000 pounds. Two 10 hp. high starting torque motors give unidirectional vibration under this pressure.



For more than 50 years, block makers have looked to Besser for better block machines. Today's Vibrapac produces high quality block faster and with a minimum of downtime. The four illustrations above explain why the Vibrapac excels. They spell profits for block makers everywhere. The Vibrapac gives more . . . more power, more smoothness, more ruggedness, and, what every block maker is primarily

interested in, greater production. No wonder the Vibrapac is universally regarded as the world's leading concrete block machine.

Plan now for increased production of quality block. Replace antiquated, cost-consuming machines with more dependable Vibrapacs. Your nearby Besser representative will gladly give you all the facts.

BESSER Company

World's Leading Manufacturer of Concrete Block Machinery

BOX 171, ALPENA, MICHIGAN, U.S.A.